THE

PALESTINE EXPLORATION FUND.

PREFACE.

We have, before all things, to call the attention of our subscribers and readers to the speeches made at the Annual Meeting, and especially the statement made by the treasurer of our position and prospects. The funds are in an unsatisfactory condition. We have the summer, an unproductive season, before us; we are pledged to carry on the Survey, which is the most important and the greatest work ever yet undertaken in Palestine; and we want to send out M. Clermont-Ganneau, for one year only, to clear up, if possible, some of the points of dispute and mystery with which the topography of Jerusalem is beset. We therefore most earnestly beg our readers to assist us, first, in forwarding their own subscriptions, and secondly, in bringing the Society before the notice of others.

As regards the expense of the Survey. It ought, with printing, publishing, lithographing, &c., and including all expenses in Palestine, except those of excavation, to be covered by about £3,000 a year. The first six months of the present year have not brought in quite half that sum. We must add to this the expenses of "management," *i.e.*, advertising, rent, postage, salaries, &c., which are kept as low as possible, but which, with every economy, cannot be brought under £500.

Nothing could be more satisfactory than the progress of the work, and nothing more beautiful than the portions of the map already sent home. In the reports of Lieutenant Conder and Mr. C. F. Tyrwhitt Drake will be observed especially the accounts of Carmel; Athlit, remarkable especially as the site of the *Castellum Peregrinorum*, the landing-place for pilgrims; Cæsarea; the tombs of El Midyeh, supposed by some to be the tombs of the Maccabees; and

Mr. Conder's account of recent work done in Jerusalem. Among other things, Lieutenant Conder has obtained from Mr. Schick a hundred and fifty new rock levels. These, with the information already acquired by Major Wilson and Captain Warren, will enable us to produce a ground-plan of the city, which will form the most important set of data possible for all topographical questions. Mr. Shapira continues to accumulate fresh collections of inscribed pottery, of which Lieutenant Conder sends us copies. The first collection was bought by the German Government, but the opinions of the English *savants* are still unfavourable to the genuineness of the inscriptions.

The tracings of Lieutenant Conder will be exhibited at the Dudley Gallery during the months of July and August. We have here to call the attention of our readers to this exhibition, which contains, besides Mr. H. A. Harper's most beautiful collection of water-colour sketches, illustrations of the whole work of the Society.

All the particulars of the newly-found Samaritan stone will be found in this number.

Mr. Drake, who is returning to England for a short time on sick leave, was prevented from being present at the Annual Meeting through the accident of a telegram being wrongly delivered. The Survey party has been strengthened by the addition of Corporal Brophy, R.E.

The American party are now on the east of Jordan engaged in their preliminary expedition. Their party, too, has been strengthened by the addition of two assistant engineers.

MAP TO ILLUSTRATE LIEUT. CONDER'S LETTERS.

THE SURVEY OF PALESTINE.

LIEUT. CLAUDE R. CONDER'S REPORTS.

REPORT XII.

The South Side of Carmel.

P.E.F. Camp, Jeba, 12*th March*, 1873.

Survey.—The last day but one of February found us once more in the field, and the work has, during the present month, been continued without interruption, in spite of two or three thunderstorms, which fortunately passed over us by night. The difficulty of choosing a good site for a camp, a place at once central for the work, at convenient distance from the old boundaries on the east, and from the sea on the west, and at the same time possessing good water and provender for our animals, is now far greater than in the country in which we worked last year. The villages are few, most of them are very poor, and the water brackish and unwholesome. Thus we were forced to content ourselves with our present camp, which is at the foot of the hills, rather to the south of Athlit, and at some distance from the main ridge of Carmel, which an inspection of our last tracings will show to have been the former southern boundary of the work.

The task of triangulation also requires more judgment than formerly. The ruined towers of Athlit and Tantûra would, I had hoped, have afforded standing places for the theodolite; but the first proves merely a wall and the second (also solid) has had the facing of ashlar removed as high as it could be reached from the ground, and it thus stands on a base about two-thirds the size of the upper overhanging part, where the facing could not be reached. We could therefore only observe to, and not from these points. On Carmel we obtained a very extensive view, and succeeded in bringing our observations over its highest ridge, and connecting with the points in the maritime plain. Towards the south, however, the hills are low, with flat broad tops, and differing in height very slightly. To obtain a commanding and conspicuous point was therefore impossible, and whilst choosing the best, we had some difficulty in recognising it again from a distance. Our calculations, however, show that we obtained it correctly, and the operations are altogether satisfactory.

The average size of the triangles is ten miles side, but many of the lines are twelve to fifteen miles. The triangulation extended from the new base now stretches across Palestine, from Tabor on the east to Acca, Haifa, and Cesarea on the west, and forms a good basis for extension to the hills of Safed, and to the Sea of Galilee. It will be checked by its correspondence with the old work on the east, and with the Admiralty latitudes on the sea-coast, and will finally be brought back (by June, it is hoped) to the old base at Ramleh.

The execution of the detail on Carmel is a work of more wearisome and difficult nature than any we have had since leaving the Judæan hills. Huge valleys, upwards of 1,000 feet deep, wind tortuously from the main ridge to the sea. They have to be traced carefully, as one can never predict where their next bend may carry them. Ruins appear on hills opposite to you, seemingly within easy reach, and hours have to be spent in dragging your horses down over hard, sharp, slippery rocks, through a jungle of thorny shrubs, and up another ascent of perhaps thirty-five degrees' slope before one can arrive at the site, and commence its examination and survey. Often the remains are quite modern, and ill repay one's trouble, but the thoroughness required in our work makes even these negative results valuable.

Two special surveys will also be required in accordance with our instructions, and I hope soon to be able to send home copies; they will include the neighbourhood of Athlit (Castellum Peregrinorum), and of Cesarea. At Tantúra, the ruins are not sufficiently numerous to require separate survey.

Archæology.—Besides the three principal ruined sites at the above-mentioned towns, concerning which you will hear from Mr. Drake, there are a great number of scattered remains throughout our present neighbourhood. A curious low line of hills, of which I shall have occasion to speak later, running along the sea-shore about half a mile inland, but gradually approaching as it goes north to the narrow beach, is quarried on both sides throughout its whole extent. At a distance the appearance of the rocky scarps and steps resemble the walls and flat roofs of a village, and only by the greyer colour is it possible to distinguish between the two. The hills farther inland present similar quarries, at Kh. Shih, and in two or three places on Carmel.

All these quarries are full of rock-cut tombs; at Kh. Shih, at Kh. Umm el Shukuf, and Kh. el Shellaleh, on Carmel, and on the sea-coast, at Kh. Melhah, and near Sarafend, Kefr Lam, and Tantúra, I have collected plans of from fifty to sixty of these sepulchres, the greater part being full either of *tibn*, or of bones and skulls, probably of poor passengers murdered by the natives of the villages. In these ghastly receptacles the turban or dress of a victim may often be found more or less complete.

The majority of the tombs have three loculi parallel to the three sides of the chamber, with a door on the fourth. In each group, however,

at least one with loculi running in perpendicular to the line of the sides occurs. On one we found a cross very distinctly cut. Most of the doors were originally closed by a cylindrical stone of about three feet diameter, and some eighteen inches thick, rolling back into a recess on one side. This method is well known, and its relation to the words of Scripture, "Who shall roll away the stone for us?" has often been shown. Here, however, for the first time I saw some of the stones, fallen flat in front of the doors.

In the midst of the wilderness of Carmel we came on the scanty indications of Crusading work. It is a good instance of the very little that remains of even comparatively modern buildings. From a distance we could see the walls of a ruined village known as Khirbet el Shellaleh, standing as a promontory surrounded with valleys 600 to 700 feet deep, and with steep sides, unapproachable except by one winding road. It commands the country round, though higher hills exist within the range of modern guns, and immediately suggested a Crusading site, resembling such places as Rurhmieh, and Burj Bardawil. Having at last reached it, we could at first find nothing but quite modern ruined hovels, and a quarry with two tombs. Closer inspection, however, showed some small stones with a broad shallow marginal draft, and one well dressed seven feet long, also drafted. The remains of a column built of several pieces one above the other, and of a rocky scarp, the foundation apparently of a small tower to which a flight of rock-cut steps led up, next confirmed my opinion, and, finally, a Maltese cross cut on a broken stone, and well finished, was visible, built into a modern mill aqueduct in the valley below. Putting together these slight indications, there can, I imagine, be no reason to doubt that a small Crusading castle or fortress was here hidden amongst the hills on an almost impregnable site. The head-quarters no doubt would be in the large station of Athlit, which was visible through the mouth of the wady below.

Geology.—The geology continues to possess some points of interest, and it is satisfactory to find the new facts agree with former deductions on the subject. The sea-wall, or low ridge dividing the plain from the shore, is a curious and interesting feature. To trace the dip of the strata is almost impossible, as the quarrying has so changed the features of the hills as to render their original form almost untraceable. The rock is a compact sandy limestone, in which, however, the sand generally predominates so much, that it might, perhaps, be called a cretaceous sandstone. The strata, or laminæ, are very thin, and evidently formed at the bottom of the sea, near shore, where the sand would be constantly changing its slope, so that, as at present observed, no two laminæ appear to be parallel.

The upheaval of Carmel is now traced on every side, and the dip measured in two or three places. The underlying dolomite is tilted upwards towards the main ridge, and disappears on the south beneath the softer thickly-bedded strata; these are of varying consistency, some

being hard and crystalline, but less compact than the dolomite. At one point I observed a curious vein of hard brown crystalline stone, running through the soft.

We have been fortunate in finding quite a nest of fossils on one hill top (principally gasteropods). On the road to Carmel I picked up an Ammonite; and farther south, in some dark stone are a number of bivalves. A fossil limpet, and some large kind of (?) peeten, with a broken portion resembling Gomphoceras (one of the Ammonitidæ), are also added to our collection, and generally the rock appears near the coast to be much fuller of animal remains than inland.

By far the most interesting geological feature is, however, the unexpected discovery of a basaltic outbreak, an irregular crater some five hundred yards broad, in the neighbourhood of Ikzim. It is the largest I have yet seen in the country, and close to the reported mines, which we have not yet visited, but which may prove to be a lode of copper.

The largest cave I have yet seen, apparently natural, though, perhaps, formed not by water, but by the action of pent-up gases, as suggested in other instances by Dr. Tristram, exists just north of us. I followed it to the end with a candle, and found it some twenty feet broad and high, three hundred feet long, and full of huge bats, whose rushing wings could be heard in the darkness. It contains a few stalagmites of moderate size.

Natural History.—The present season shows Palestine to the greatest advantage of any in the year. The plains are covered with bright green, and the dark wilderness on the hills is lit up with flowers. Of these the commonest are the red anemone, like an English poppy, and the delicate pink phlox. The rock roses, white and yellow, with a few pink ones, the cytiens in one or two places covering the hill-side with golden flowers, the pink convolvulus, marigold, wild geranium, and red tulip, are also plentiful, and several species of orchis, the asphodel, the wild garlic, mignionette, salvia, pimpernel, and white or pink cyclamen, with may in full glory, may be added to the list.

Animal life is becoming active again; at Athlît we obtained gigantic ants. The beautiful mahogany-coloured rhinoceros beetle, the venerable scarabæi, and great numbers of flower beetles, of various species, are very common. The butterflies are new, including the orange tip (*Anthocaris Cardaminsis*), the Apollo, and two species of large sulphurs, one of which I have not yet been able to obtain. The great swallow-tails, newly born, are confined to the hill tops, and the red admiral (*Vanessa Urticæ*) is less rare.

Amongst the birds the greater spotted cuckoo and a few quails are the only new arrivals. The last storm at Haifa in February brought great shoals of fish into the bay, and the gulls and a number of petrel followed them. As soon as the sea was quiet once more the sands were found covered with perfect specimens of sea shells, of which I obtained a small collection, including a beautiful little crimson peeten, and some specimens of Trochus; none but broken specimens had been observable before the storm.

XIII.

Jerusalem and El Midyeh.

P.E.F. Camp, Mukhalid, *2nd May*, 1873.

Following the suggestion lately received from a member of the Committee, I shall in future divide the report of work done from the subjects of general interest included in my letters, and place it first, to allow those who have no time to spare to follow our proceedings without being obliged to read more than the first paragraph.

When last I wrote we had again started field work, and were advancing south; we have, since leaving Jeba, camped at Kannir and Zayta, and shall in a few days break up our camp at Mukhalid, and retire into the hills, having added upwards of 360 square miles, with a monthly average of rather over 170. The triangulation is still large and well shaped, and we have been very fortunate in finding a fine point in the plain, on the top of a high tower in the town of Kakun, and a second almost as good at Kalensawyeh, farther south. In addition to a great number of notes, sketches, and sketch plans now added to my book, the following large-scale plans and surveys have been executed.

Athlít:—

Survey of the enceinte of Athlít, scale 24in. to 1 mile.
Plans of three large vaults below the town.
Plan and proposed restoration of the church, sketches of detail.
Plan of a large tomb (possibly Phœnician) near Athlít.

Cesarea:—

Survey of the mediæval town of Cesarea, scale 50in. to 1 mile.
Survey of the Roman enceinte at Cesarea, scale 6in. to 1 mile.
Plan and section of the remains of the cathedral.
Sketch plan of the theatre south of the town.
Sections of the two aqueducts, as laid down on the map.

Miamas:—

Plan of the Roman theatre at Miamas.
Plan of a vaulted building on hill above Miamas.

Kalensawyeh:—

Plan, sections, and sketches of Crusading Hall at Kalensawyeh.

Numerous sketches and notes were also taken at Tantúra. The site of a Roman town, remains seemingly of a small temple, and a lintel with rough bas-reliefs of lions, were found at Khirbet Semmakah, on the side of Carmel, and it is supposed by Dr. Chaplin to be the site of Ecbatana, afterwards called Carmel by Pliny (*Nat. Hist.* v. 19), where, according to Lightfoot, Vespasian erected the oracle of the God Carmel; it occupies a very strong site, and a great number of oil presses are found near it.

Two inscriptions have also turned up. The first is old Hebrew, found by Corporal Armstrong and myself at Umm el Zaynat on Carmel, over a tomb now choked with rubbish. The rock is too rough to admit of a squeeze being taken, and the letters could hardly be traced, being cut

roughly and painted red, surrounded with a red border. The second was on a stone which had formed part of a tomb near the village of Belah, and was in Greek, εις θεος μονος (to the one God) being distinctly visible and a date which Mr. Drake puts at 332 A.D.

In the neighbourhood of Mukhalid we find a Saracenic khan, and a group of fourteen rock-cut tombs, with loculi of various kinds; one is well cemented, and remains of ornament in red paint, circles, leaves, and lines are visible; another has a circle intersected with a cross cut in front of its entrance. There is also a very curious well, 40ft. to 50ft. deep, and perhaps 15ft. diameter, sunk in the sandstone north of the camp.

In geology I may add that we have obtained fossils which will serve to fix the period at which the upheaval of the shore line, as now observable, took place, and that we have traced the volcanic centre at Ikzim, which proves much larger than at first suspected.

In accordance with the wishes of the Committee I have visited El Midyeh, and obtained a survey of the place and a plan of the principal tomb.

Having arranged the triangulation from the Zayta Camp, I was able to spare a few days to go up to Jerusalem for the Greek Easter, and in order to look after the interests of the Fund in the city itself, returning by El Midyeh, and in time to direct the trigonometrical observations from the present camp at Mukhalid.

The talk of Jerusalem, and of the travellers then crowding in and around it, was the great Shapira collection. Since last I wrote on this subject many important events have occurred. The collection has struggled through the first stage of disrepute and incredulity, and the German *savans* have distinguished this valuable and unique series from the clumsy forgeries so common in Palestine, ranking it with the Moabite Stone and with the Hamath Inscriptions. The expedition of Pastor Weser resulted in a great meeting of the Oriental Society, who elected him a member. The famous names of Hitzig and Rödiger are now arrayed with that of Schlottman in defence of the genuineness of the pottery. Mr. Shapira has received the official position of an agent for the Prussian Government, and his first series of 911 pieces has just been bought by the Emperor himself, at a price, I believe, of over £1,000.

These events had all taken place previous to my last visit, and I could not fairly ask Mr. Shapira to allow me to copy such pieces as were already German property without permission from the owners. Fortunately, however, he has since been able to lay the foundation of a second collection, containing already over 250 pieces, of a character, if possible, more curious than those formerly found, and daily almost growing in numbers. Some of these he brought back from Moab himself during his recent visit in company with Dr. Chaplin, and as they are as yet unsold, and as he is free to sell them to any one he thinks best, he courteously allowed me to take the first sketches of the new objects, of which I copied as many as time would allow, and now hasten to send them home to the Fund.

The most remarkable of these is a great "teraph" of black pottery, 42in. long, with horns and a beard of a semi-Egyptian type, with a fine Phœnician inscription on the "stump" in front, and a second incised behind. The former contains seven lines, the latter ten. The pottery, which at first sight looks like painted wood, is of one colour throughout, the figure being hollow; it has a very curious ochre-coloured decay, which I have tried to represent roughly. The figure was broken in many places, and has been not over-correctly mended with glue.

Most of the new pieces come from new fields of research, with the Arabic names of which I will not trust myself. Those coming from one place bear a sort of family resemblance, though of the 1,100 pieces now collected scarcely one is a facsimile of another. The large goddess with a double inscription (also a terminal figure), and with seven horns, is not dissimilar to a smaller one with seven lines of inscription, and also with horns nine in number. The following, out of the fifteen objects I send home, are of most interest, next to these large figures: First, a teraph, with the two letters Yod, Wou, which if they turn out to be a form of the sacred name *Jehovah*, will be of highest interest; in this, with the exception perhaps of the calf and calf-headed deities, we find the first indication of the worship of *Jehovah* by surrounding nations, to whom, as we see clearly from the Moabite Stone, he was but the "tribe god" of the Jews, the husband of Asherah, and third in the triad with Baal and Ashtoreth, a view already learnedly supported by Lenormant in his "Lettres Assyriologiques."

The second is a sort of "Phœnix," or bird-bodied figure with human horned head; on the neck are seven successive marks, on the breast are five letters incised. The reading of this inscription will perhaps give a clue to the symbolism of the numerous bird-forms in the collection, and I may venture to suggest a connection with the attribute of *eternity* which we find in such deities as Hobal and Bel the ancient, the Phœnix being itself an emblem of the same.

A third is a head similar to one already sent home, with a protruding tongue, which, in accordance with the descriptions of Herodotus and of St. Jerome, we may venture to consider as a representation of Baal Peor, the Priapus of Midian.

The inscription round the base of a fourth, also a horned deity marked with the seven stars, will, it is thought, throw light on the two initials *Ain*, *Aleph*, continually occurring at the beginning and at the end of the inscriptions.

A fifth seems to be the first representation of a god of the character of the classical Pan, with a tail and short goats' horns, the legs being, however, unfortunately broken and lost.

Finally, not least interesting is No. 200, a globular vessel pierced with eight large holes, and with seven arranged in an angular form, of which five are smaller. An inscription runs round this nondescript production, and above are symbols including sword, spear, bow and arrows, a shield and two stars, with another emblem very similar to a pair of spectacles.

One fine jar I was obliged to leave, and did so all the more willingly since Mr. Drake will very probably find time to sketch it, and to make an accurate copy of the inscription.

Of the old collection there are but few important specimens not already sent to the Fund. The large figure of a goddess, with an inscription translated by Schlottman, has not, however, been copied, and is now German property, as well as one very curious figure conjectured to be a representation of Charon. The head has an unusually long nose, in each hand the demon holds a human mask, behind the trunk is what one might take for a boat, and in front are two thin legs of disproportionate length resembling oars. The figure is small, and, in common with the majority of the minor pieces, it has no inscription.

Such was the condition of the Shapira collection at the time of my leaving Jerusalem. It is to be hoped that the American expedition, now already in the neighbourhood of Heshban, will succeed in bringing fresh treasures to light.

The time of year and the late fall of the winter rains prevented my visiting, as I had hoped, the passages of the Haram, but other explorations within its precincts were facilitated by the repairs now going on within the Kubbet es Sakhrah itself. I was enabled in consequence of scaffolding placed over the holy rock, to assist Mr. Schick in accurate measurements of its surface, which will correct and supplement my former sketch. I was also able to ascend into the interior of the drum, and examine the pillars for correction of my former sketches. The cornice, with an Arabic inscription, which runs immediately below the great mosaics, I was most anxious to examine, since both Mr. Fergusson and the Count de Vogüé agree that the latter are of Christian origin. I was, however, able to determine that the cornice was *structural*, and bonded into the building, and not merely a subsequent addition.

In the south-east corner of the Haram my attention was further called to the existence of a regular apse on the east side of the Mosque el Aksah; the centre has been broken away, but the commencement of the wall on either side is distinctly visible, and is marked on the Ordnance Survey. The curve of the cornice above is even better marked, and on reference to De Vogüé's plan I see that the apse is dotted in. This removes one of the great objections to the notion that El Aksah was formerly a Christian church.

We examined carefully what looked at first sight like foundations, on the platform supported by the stables of Solomon; they, however, proved in every case to be merely flagstones some eight inches thick, and there can be little doubt that these vaults are far too weak ever to have supported a structure of any weight above. The piers are, as is well known, composed of large stones drafted on one side, and evidently originally belonging to the external wall; as regards the date of the arches they support, Dr. Chaplin has lately made the valuable discovery that masons' marks identical with some used in the Muristan are also to be found on the haunch stones in the south-east corner of the Haram.

A further detail not marked on the Ordnance Survey is observable opposite the supposed springing of an arch outside the eastern wall. It is a little chamber now almost built up in the thickness of the wall.* The north side of this opening is made of large and very well-dressed ashlar, and rests immediately on the foundation of huge and undressed stones, of which two courses are visible all along the eastern wall of the stable. This recess or opening is shown as a double window by De Vogüé, but must subsequently have been walled up, as it is now only visible through a narrow opening. A very large stone with a semi-column attached, measuring 6ft. in length and 4in. in breadth, the diameter of the column being 3ft. 4in., now lies on the floor. This very probably formed a central pier to the opening.

In Captain Wilson's account of Mr. Schick's late discoveries in the Haram the examination of the Kubbet el Khidr is enumerated. Here, however, I can claim priority, as in October last I was able to enter and examine this mosque. The fact of the floor being of rock is extremely doubtful, but immediately outside the door the rock unquestionably does appear at a level 2438·5 according to my last and most accurate measurement. At or about this level it will be found to be marked together with several other new rock levels in the plate which I sent home to accompany my October report. This level being two or three feet above that of the floor of the Kubbet el Khidr is more important for antiquarian purposes than that of the floor itself, if it should indeed prove on trial with a chisel to be the live rock also.

One of the most important points as yet not fully explored is the No. 29 Tank measured by Captain Warren, and supposed by Mr. Fergusson to contain remains of the Basilica of Constantine. On this subject I may be allowed one important remark after careful study of the appearance of the ground. It is simply *impossible* that the arch of this vault can run at the same level more than a few feet beyond the point to which Captain Warren traced it on the east, for the plain reason that the crown is but 2ft. below the level of the surface, and that on the east the ground falls upwards of 10ft. before reaching the north-east corner of the platform. Thus 8ft., or nearly the whole of the arch of the vault, would be visible at this point, were the vault continued in the same line.

Another important point indicated to me by Mr. Schick was the probable connection between the cisterns Nos. 34, and 2 on the platform, and that group on a lower level known as Nos. 12, 13, and 14. The line between No. 34 and the north side of No. 14 shows indications of two shafts now filled in, and of the top of an arch of small masonry no doubt covering a vault.

Mr. Schick's kind exertions further enabled me to investigate the whole length of the very extraordinary passage leading obliquely from the south-west corner of the twin pools of the Convent of the Sisters of Zion. It was first explored by Captain Warren, but after floating on liquid

* This chamber is described in Notes to Ordnance Survey, page 38.

manure for some considerable time be found the roof too low to allow of his proceeding to the end. It has since been cleared by order of Joseph Effendi, Lord Mayor of Jerusalem. At the time of our visit it had but a few feet of water in it, and we were able to traverse its entire extent on planks.

The twin pools, now full of water to the crown of the arch, are below that level rock-cut on the east and west; they are reached by a staircase and by rock-cut steps from the street near the Ecce Homo arch. On the south side a rocky scarp rises above the crown of the arch, and over the street to a height about 2,456ft. above sea level; the rock from this point slopes gradually southward, and its height on the south side within the Haram is about the same on the north, but only 2,434ft. where it last appears (at a window on the west wall) above the level of the surface of the interior

The abrupt eastern termination of this great block, standing upwards of 30ft. over the Haram courts at the north-west corner, is distinctly visible on the interior, but its extent on the west is not as yet known. It is through this that the narrow passage, of which a plan is given in the *Quarterly* for April, 1872, is cut. It runs nearly straight till opposite the window already mentioned, which is at a distance of 100ft. from the north-west corner, and on the west Haram wall. At the commencement the passage, which averages some 4ft. in width, is 20ft. high, and entirely cut in rock, through which the rain water from the surface percolated. The roof is formed by huge flat slabs placed from rock to rock, in the sides are passages or weepers to facilitate the collection of the water, and in the bottom a small water channel, not occupying the whole width of the passage, is visible. At about a quarter of the whole length from the entrance a dam 9ft. high is placed, resembling exactly the two dams in the reservoirs planned by me at Seffurych; it has a hole below, through which the water could be let out as required. From the farther end, where the total height of the passage is only some 7ft. or 8ft., it runs on at an angle and reaches the west Haram wall at a level 22ft. below the interior surface; this part is built in small masonry, and only the lower part is of rock; the flat slabs are still visible above, and from the wall springs a nicely finished arch of small stones; the channel is evidently (as at present built) later than the wall, and ends suddenly. The true original direction of that part which is rock-cut it is impossible to determine, as it stops abruptly before reaching the wall.

The examination of the Haram wall at this point is of considerable interest, for judging from the height of the rock in the passage there can be but few courses below those visible, and these have every appearance of remaining *in situ*. The stones are 4ft. 6in. high, well finished, and tolerably well preserved, with a draft 3in. wide at the side, and 6in. above and below: the reason of this difference being that each course, as far as one can judge from only seeing two joints, was set back 3in. or 4in. from the one immediately below it. The same feature was observed by Captain Warren in his excavations near the north-east corner of the Haram at about a corresponding level.

Just before reaching the turn in the passage, and opposite the window in the Haram wall, a way has been broken through at right angles to the passage, and the chamber in which the window is can be reached through the floor.

This point is also one of great interest, as the wall is again visible. The south side of the great scarp is here traceable from the Haram wall to the passage, and forms the north side of the chamber. The Haram wall here about the level of the interior is of masonry similar to that already mentioned, and the courses are stepped back in the same way.

But at the level of the ground on the interior the wall is made thinner by a bevelled set-back, leaving two buttresses 4ft. 9in. thick at intervals of 8ft. 9in. This arrangement has been observed at Hebron, and in the remains east of the Church of Holy Sepulchre, but has never before been found in the Haram. The courses of the buttress are all flush. The lintel of the window is one large block, resting on the south side on the courses of the wall, and on the north side on the rock of the scarp.

I was also able before leaving Jerusalem to obtain from Herr Schick the long-promised plate of rock levels throughout Jerusalem. It shows the exact position and depth below the surface of the rock in upwards of one hundred and fifty new places. Combining this with Captain Warren's careful observations, I shall be able to produce a ground-plan of the natural site of the city, which will form perhaps one of the most important set of data for the study of the ancient topography which we can hope to obtain. It must not be forgotten that to Mr. Schick belongs the credit of this most useful and necessary basis for future exploration.

Leaving Jerusalem once more, in the company of Dr. Chaplin, we proceeded by Upper Bethhoron to El Midyeh, of which, in compliance with the Committee's directions, I send a short account with a 6in. survey of the site and a plan of the tomb.

In the January *Quarterly* for 1870 will be found (p. 245) an account of the place by Dr. Sandreczki, who first identified it with Modin, and the curious building with the seven sepulchres erected by Simon Maccabeus for himself, his parents, and his four brothers (1 Macc. xiii. 27; Antiq. xiii. 6). The requisites of the two accounts are, a view to the sea, seven tombs "one against another" with surmounting pyramids and a cloister surrounding them. These, as he points out, are all fulfilled at El Midyeh. My sketch will show how the sea, and the long line of sandhills, with the olive groves of Ramleh, and the white minaret of Lydd, are visible above the line of lower hills immediately west of the spot.

A further account of explorations carried on in that year by M. Victor Guerin will be found in the June number of the *Quarterly* for 1870. After clearing the *débris* the tomb was opened, and, as we were informed by the inhabitants, bones and other treasures, including perhaps the tesselated pavement which formed the flooring of the chamber, were carried away to Jerusalem.

The condition in which the monument was left in consequence of these excavations was not over favourable for subsequent examination.

El Midyeh.

This is a large Arab village, standing on a hill, and defended on the north, south, and west by a deep valley. Immediately south of the present town is a round eminence with steep and regularly sloping sides, suggesting immediately an ancient site, but showing nothing in the way of ruins except a few stone heaps amongst the olives which cover its summit. The ground on the west side of the deep wady, which has the modern name Wady Muláki, is, however, much higher, and closes in the view of the sea. It is here, about half a mile west of the village, that the Kabur el Yahud, or "Tombs of the Jews," were found, close to a modern white tomb house, with a spreading tree beside it, the resting-place of Shaykh Gharbawi Abu Subhha. My survey and plans give the necessary details, and I will only add a few observations to explain them. The sepulchres, which are fast disappearing, seem to have been seven in number, probably all of one size, lying approximately east and west, and enclosed by one wall about five feet thick. This is well preserved on the east and west, but has disappeared —or was removed by M. Guerin—on the north and south. Of the walls of partition, however, only one can be well traced, consisting of stones well dressed, laid with continuous horizontal and irregularly broken vertical joints, without any trace of drafting, and varying from 2ft. to 5ft. in length, their other dimensions being about 2ft.

The most northern is the only one of the chambers which is sufficiently preserved for examination, and differs entirely from any sepulchral or other monument I have as yet seen in the country. It consists of a chamber open on the north, nearly 8ft. high, 6ft. from east to west, and 5ft. from north to south. Its only remarkable feature is a cornice the profile of which is a quarter circle, which is evidently intended to support a greater overlying weight than that of the flat slabs some 6ft. long which roof the chamber in. The floor was also of flags supported by a narrow ledge on all sides; these having been removed, the tomb itself could be seen below, a square vault of equal size with the chamber, and apparently 3ft. 6in. deep, though the *débris* which had filled it on one side may have prevented my sinking down to the floor itself.

The pyramid which once surmounted each of these chambers has entirely disappeared; its only traces were the supporting cornice on the interior, and the sunk centre of the upper side of the roofing-slabs, which were raised about 6in. round their edge for a breadth of 1ft. to 1ft. 6in. The base of the pyramid must have been a square of 8ft. or 9ft. wide (it is not possible to determine it exactly), and the height would therefore probably have been 15ft., or at most 20ft. Of the mosaic pavement to the tomb, and of the ornaments of its walls, I was not able to find a single trace.

The surrounding cloister has also been destroyed, but on the north and west a few courses of a well-built wall were visible in parts, parallel to the sides of the tomb, about 20 paces from its outer wall. Within this enclosure was a choked-up cistern, and without, farther down the hill, a rough cave 22 paces by 14, used as a cattle stable, and full of soft mud.

Immediately north of the tomb are remains of later buildings of small rough masonry with pointed arches. They are ruined houses according to the account of natives of the spot.

The name Khirbet Midyeh will be found on the map as applying to a set of rock-cut tombs about a quarter of a mile south of the Shaykh, and these are described by Dr. Sandreczki at some length. They are separated by a slight depression from the "Kabur el Yahud," and between the two, as shown in my 6in. survey, there is a well and a couple of ruined and broken cisterns. The Doctor enumerates about twenty-four tombs; of these I observed twenty-one, and a large one with two entrances, twenty-three in all. It is possible I may have missed or forgotten to show one. The tombs resemble exactly those formerly described in the large cemetery at Ikzal, but are smaller. They consist of square chambers sunk about six feet in the flat surface of the rock, with a loculus parallel to the length of the shaft on each side, cut back under a flat arch, as shown in the sketch. A large block of stone closes the tomb above; all had, however, been pushed slightly to one side, leaving the interior, which in one case was occupied by the body of a poor native woman but lately placed there, distinctly visible. At first I imagined that they all pointed east and west, but one it will be noticed is at right angles to this direction. Nine of them are placed in one roughly-straight line, and four others parallel. They were all very small. The loculi cannot be more than 5ft. 6in. long, and the stones above are not much over 6ft. 6in.

As continually happens, a tomb of another class exists in the immediate neighbourhood. South of the nine tombs the rock is scarped perpendicularly to a height of 5ft. for over 30 paces, and on the west a square chamber with rock scarps on three sides six paces in length is thus formed. It was probably once roofed over, but no traces of masonry remain; it is filled with rubbish, and on the north and west the tops of two small entrances to chambers are visible; I could not, however, find any corresponding door on the south. A chamber of this kind exists in two or three places near Haifa, where the side entrances lead to tombs with loculi perpendicular in direction to the walls. Similar loculi occur at El Tireh, in connection with tombs *sunk* like the majority of those at El Midyeh. In fact the mixture of three or more classes of tombs in one cemetery is common throughout the country, and the chambers in question, if once the *débris* were removed (which would hardly repay the trouble), would very probably prove to have the Jewish loculus.

The wine-press mentioned in the former Report I visited and measured; it is not equal to other specimens I have copied. East of the

cemetery the rock is much quarried, and there are a few sunken square places resembling unfinished cisterns, or the commencement of a system of new tombs.

There is not, as far as I am aware, any other feature of interest to mention at El Midyeh.

Some account of the ruins at Khirbet Semmakah, the only place on Carmel where remains of any importance exist, will no doubt prove interesting, especially if, as already discussed, it seem likely to be the site of Ecbatana or Carmel.

The statement of Lightfoot is not, however, received by Dr. Thomson, who quotes Tacitus ("History of Vespasian," p. 410) to show that the God Carmel was worshipped without a temple, in the open air, on the top of the mountain, and probably at El Mahrakah, the place of Elijah's sacrifice.

That Khirbet Semmakah is the site of a town, and to all appearance of a Roman town, there can be but little doubt. After wading through the almost impassable brushwood which lies on the lower slopes of Carmel, we came upon a small plain or broad valley with a gently sloping hill at its northern boundary, whilst on the east and west the sides were steeper, and impenetrable for horse and man.

The ruins lie scattered over an extent of rather less than a quarter of a mile, principally on the sides of the hill, and but few were found on the top. On the northern side a very deep and precipitous ravine, in which the vultures, crows, and hawks were wheeling slowly, closes in the site, and renders it impregnable in that direction. The name is Wady Nahel.

The principal remains are those of what would seem to be a small temple, having a bearing of 87°. Only the lower courses of the eastern wall, and two pillar bases 2ft. 3in. diameter, are left. The doorway, which is slightly north of the northern pillar, was 5ft. 3in. wide, and surmounted with a lintel with simple mouldings. This had fallen within the building, and the upper part of the jambs with corresponding mouldings had also disappeared. The stones of the wall were ornamented with drafts, one being 5ft. in length, and so cut as to appear like two stones with the centres raised, and drafts 3in. broad and about 1in. deep. Other drafts were 7in. broad and 1½in. deep. The faces of the stones were in all cases dressed, but the deeper drafted ones were rough.

Immediately east of the temple the town wall, or some similar structure, was traceable for about 50 yards, and consisted of small well-cut stones, about 1ft. long and 6in. high; several other walls joined on to this at right angles, and on one of these, close to the temple, was a stone seeming to have been originally a lintel, but now placed in the wall. It was 7ft. long, 3ft. high, and ornamented with a tablet on which in bas-relief were two lions roughly executed facing one another, and with a cup placed between their paws. A second smaller cup was cut above the left-hand lion's back. The whole of the masonry, though small, was

well dressed, and far superior to modern Arabic workmanship. Unless, indeed, which is unlikely on account of the bas-relief, they should be Jewish, there is no date but that of the Roman occupation to which to ascribe these ruins.

Continuing our search we found a well within the town wall, and a cave without. At the south-west corner of the hill is a strong corner foundation, which seems to belong also to the outer wall, and farther north the ground is strewn with broken stones and fragments. A very low valley here separates the ground and runs south, on the east of its course, and directly north of the temple two caves appear, one possibly a rough tomb. To the west also there are several remains. These include a fine beehive cistern, about 30ft. diameter, foundations of good-sized and well-proportioned stones, and a large sarcophagus lying on the flat rock, 8ft. in length, and with a flat lid beside it.

Still farther west is a smooth platform of rock, in which a square birket, 10ft. sidé, and a well now partly choked, 3ft. diameter, are found.

The most characteristic feature, however, remains to mention. In every direction one finds foundations of little buildings about 20ft. square, near which lie one or more (generally a pair) of rollers, cut out of soft limestone; they are 7ft. long and 3ft. diameter, and have grooves sometimes running the entire length, but generally arranged in four lines parallel to the length of the pillar, with four or five grooves in a line. Of these I counted upwards of a dozen. They are supposed by Mr. Drake to be rollers, moved by handspikes, and placed end to end in the buildings, which he takes to be oil mills.

It is needless to add that I made a rough special survey of the place, and plans and measurements where required.

A doorway, similar in some respects to that of the temple, we found afterwards at Khirbet Baydus, south of Kannir; but in this case lintel, jambs, and seemingly the groundsill, were all cut out of one piece of very hard creamy limestone with fossils. No other ruins of the same date, except a pillar stump, a rough cave, and some blocks of a wall, existed near it. There were, however, ruins of more modern character.

In concluding this report I wish to say a few words as to the geology of central Palestine, the thorough tracing of the centre of basaltic eruption at Ikzim having explained a great deal which must formerly have been puzzling.

In Report VII. I spoke of the formation of the great Plain as due to volcanic action and subsequent denudation, and of the low synclinical dipping upwards to the basaltic centres at Shaykh Iskander and on the Gilboa range. The subsequent discoveries confirmed this statement, but it was not till after leaving Jeba that I was able to grasp the whole geological formation of the country. The sudden upheaval of Carmel, with its abrupt sea and land ends, must strike all observers as requiring explanation, as well as the low, flat character of the range forming the western boundary of the great Plain, between the peak of Elijah's sacrifice and the cone at Wely Iskander's tomb.

The Ikzim centre explains all this. The low ridge just mentioned, of soft limestone with flints, with a yet softer marl below, dipping gently down towards the Maritime Plain, and known by the modern name of "Belad el Ruhah," presents the natural surface of the country. On the south this is broken by the outburst of basalt and other trappean eruptive rocks at Shaykh Iskander, which, in their attempt to escape, have tilted the strata at an angle of upwards of 30 degrees, and have brought to light the underlying dolomite, from above which the softer formations are now washed off by subaerial denudations. On the north-west the Ikzim outbreak has entirely broken up and altered the surface of the country, and finally the appearance of a trappean outbreak near Umm el Zaynat, and of a large cavern, perhaps formed by pent-up gases, on the slope of Carmel, together with its steep sides and the direction of the dips, leads one inevitably to the conclusion that the great elevation of the range is due to the violent internal action of igneous matter, unable to find more than a very partial outlet for escape. The dolomitic rocks and the fossiliferous limestones of Carmel are at a higher level, but of an older formation than the soft marls of the "Belad el Ruhah," and thus it appears as though the effect produced on the part where no escape was possible was far greater than where, as at Ikzim, the basalt found an easy outlet.

On leaving this centre to the north the plain of Sharon suddenly widens to a more than double breadth, and the gradual slope of the hills contrasts markedly with the inland cliffs north of the Zerka. We now approach again the Judæan range, which is said generally to present a low anticlinal, an assertion which it requires numerous and careful observations to prove.

Another point of great geological interest is the date of the upheaval of the shore line, and on this also we shall now be able to throw light, in consequence of a valuable find of fossils at Khirbet Dustray, near Athlít, on the curious *sea-wall* or line of low inland cliffs of sandy limestone, in which, as explained in my last report, the tombs and quarries are so constantly found.

Advancing south of the Zerka we find this line to run gradually farther inland with the widening plain, and after passing Cesarea a second line of cliffs begins to rise close to the beach, attaining a height of 200ft. near Mukhalid, and running on continuously to Jaffa. Thus it seems as though two succeeding periods of upheaval might be expected, giving shore lines some four or five miles apart. It appears also that this upheaval has a very gradual dip upwards towards the south, but further observations near Acca will be necessary before advancing any theory on the subject.

From such a study of geology in a country so interesting as is Palestine, one is led to the conclusion that volcanic action throughout its whole extent from Dan to Beersheba, must have been very violent and continual, and I look forward with great eagerness to the thorough examination of the Ghor, which may perhaps prove to owe its formation

neither to a fault nor to glacial or fluvial action, but to a sudden volcanic convulsion not impossibly at a late geological date, which one cannot but connect in one's own mind with the overthrow of Sodom and Gomorrah.

CLAUDE R. CONDER, Lieut. R.E.,
Commanding Survey Party.

MR. C. F. TYRWHITT DRAKE'S REPORTS.

XIII.

CAMP JEBA, *March* 12, 1873.

OUR present camp is pitched at the foot of the western slopes of Carmel, some three miles south-east of Athlít. The ruins of this place seem wholly Crusading, and I shall forward an account of them as soon as we have examined them. A remarkable natural feature is observable near the coast; commencing in sand dunes about three miles south-west of Carmel convent a ridge runs parallel to the mountain of that name, gradually increasing in regularity and in hardness of rock, till, between Athlít and Tantúrah, it assumes the form of a rocky ridge 40 to 50 feet high, and some 300 yards broad. The stone is a soft crystalline limestone, almost resembling a sandstone. Between these two last-named villages is a plain stretching westwards from this sea-wall to the sea, and protected from inroads by the peculiar manner in which the former has been quarried. For many miles the whole surface of this ridge has been cut and quarried to a depth of from six to ten feet. In many places a narrow ridge or crest has been left on the summit, thus forming a wall of living stone. Passages have in several places been cut through the ridge, and show traces of having been closed by gates. Rock-cut tombs, as described by Lieut. Conder, are numerous in these quarries, and must, I imagine, be ascribed to the early centuries of the Christian era. Our present state of knowledge, however, with regard to the rock-hewn tombs of Palestine, owing to the almost total absence of inscriptions or any other guides, renders all attempts at fixing the date of these excavations uncertain.

Besides the road passages above mentioned, one water-drain has been also found cut through the rock. In several places, too, we have come across old chariot roads with deep ruts in the rocky surface.

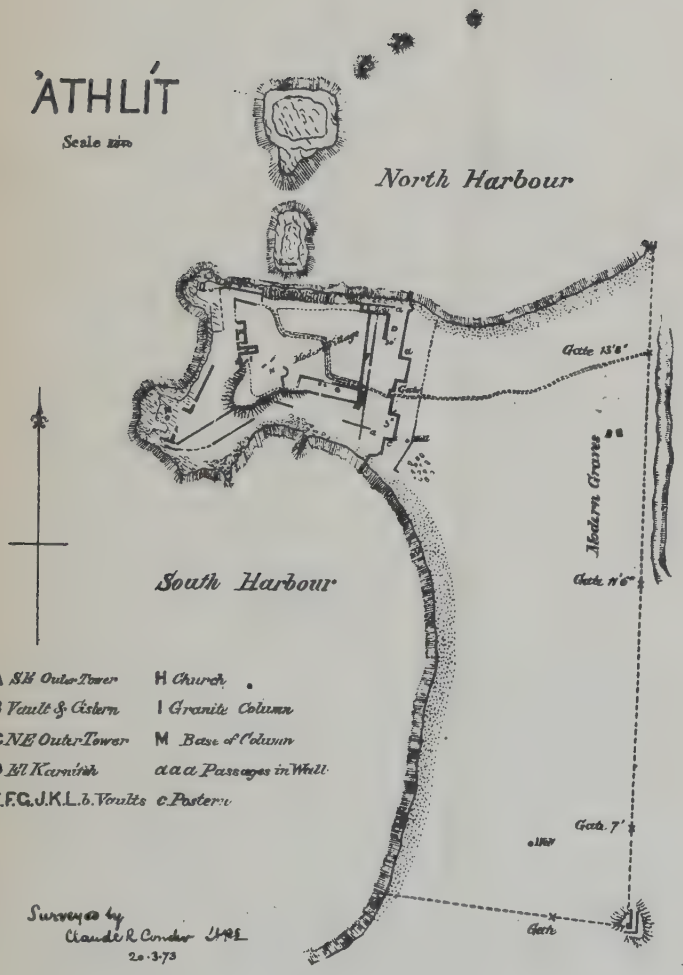
The present village of Tantúrah is situated about half a mile to the south of the ruins of old Dor or Dora. The remains of these ruins—for as usual all the dressed stones have been dug up and carried off—cover an oval mound comprising several acres and adjacent to the sea. The most prominent object is the remains of a tower of Crusading or early Saracenic construction. The part still standing is the north-east

buttress of a square fort on a spit of land running into the sea. A pointed arch gives the clue to its date; part of a well staircase may still be traced. The ashlar stones are about three feet by two feet and one and a half feet thick; mortar, full of cockle shells, layers of rubble, and old Roman bricks, form the interior of the walls. North of this, and supporting the cliffs, are walls of Roman work, formed of stones some four feet by two feet and two feet thick. Foundations as of a kind of wharf still remain at the water's edge. This massive masonry has been lined throughout with a coat of rubble and cement to a thickness of about two feet, for what purpose I am unable to say. Above these substructures, and immediately facing the sea, are the *débris* of a large number of columns two feet ten inches in diameter. The capitals are a kind of Ionic not unfrequent in the Hawran, and of which I have given an example found in the 'Alah in "Unexplored Syria." The volutes are formed on each side by the junction of two cones attached to the capital, an example of which measured four feet four inches by three feet four inches at top. The building to which these columns belonged must have been a conspicuous object from the sea. To the east of the mound is a Roman tank for irrigation, differing from those I formerly described near Jaffa as being built of rather large blocks of stone. Near this are a few gray granite columns. The sea-coast here is fringed with low rocks and indented with little bays which, protected by a few small moles, would still serve, as they doubtless did under the Romans, as harbours for coasting craft.

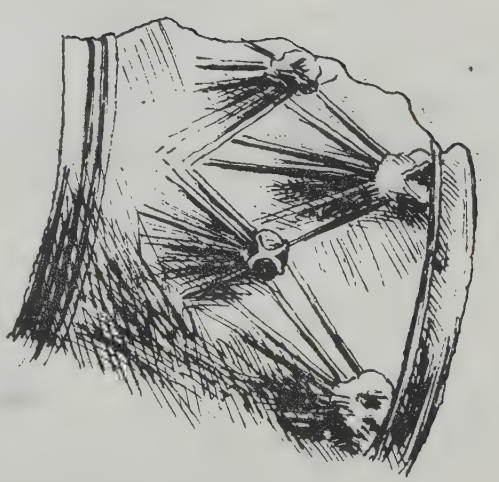
Throughout all this neighbourhood the rock-tombs above mentioned are much used by the fellahín to stow away the bodies of murdered men who, not having died *en règle*, cannot be buried in a Mohammedan cemetery. In two caves near Sarafend I counted sixteen skulls, near Athlít as many, and frequent solitary cases or groups of two or three are found scattered about. A native of Athlít to whom I first applied for information, said, "Those are the bones of men killed about here," and seemed to think it the most natural thing in the world that if men went along the high road they should come to such an end.

Turning to the pleasanter subject of Mount Carmel we find its steep sides and rugged wadies still covered with a growth of brushwood which shelters the usual wild animals. Many ruins are scattered over the hills, some ancient but many of recent date. Till the advent of Ibrahím Pasha the Druzes were very powerful in Carmel, and owned many villages. All of these, with the exception of 'Asfieh and Dáliyeh —the former half Christian—are now deserted. At a river called Semmákah a large number of columns have been found and will be described on a future occasion.

The weather is peculiarly unsettled and disagreeable, as well as far from healthy. The wind is continually changing, though blowing more from the east than from any other quarter. During the last few days haze and mist have frequently occurred, and there is seemingly every probability of an early and unusually hot summer. The cereals are


ATHLIT
Scale 1in
North Harbour
South Harbour
Gate 13'2"
Modern Graves
Gate n'6"
Gate. 7'
Gate
A SE Outer Tower
B Vault & Cistern
C NE Outer Tower
D NE Karnish
E.F.G.J.K.L.b. Vaults
H Church
I Granite Column
M Base of Column
a a a Passages in Wall
c Postern
Surveyed by
Claude R. Conder Lieut R.E.
20.3.73

REMAINS OF TEMPLE BUILT BY HEROD AT CÆSAREA.



Broken Capital from the Church.
Tekoa.

well up and barley has been in ear, on the maritime plain, for more than a week.

The following are a few of the identifications of ancient sites which I had begun to work out in our winter quarters at Haifa when sickness prevented their completion. As far as I can ascertain these proposed identifications are new.

יתלה. *Jethlah* is mentioned (Josh. xix. 42) as a town of Dan, and seemingly in the neighbourhood of Ajalon (the modern *Yalo*). There is no Arabic name that I am aware of which exactly corresponds to the Hebrew, but here the reading of the LXX. Σιλαθά may perhaps help us. If that be correct the modern village of *Shilta*, which lies a little north-west of the lower Beth Horon, may perhaps represent Jethlah.

חלקת הצרום. *Helkath Hazzarim* is mentioned 2 Sam. ii. 16, and is translated in the marginal reading "the field of strong men," and we are told that it was a place in Gibeon, the modern El Jîb. Close to this village is a broad smooth valley called Wady el Askar, meaning the "vale of the soldiery," which may not improbably be a reminiscence or translation of the Hebrew name.

The town of *Asher* (Josh. xvii. 7) has been identified with Yasír, but the modern Asirah seems a somewhat more probable indentification.

In Josh. xxi. 25, and the other parallel passage, 1 Chron. vi. 70, we find mention of Aner and Bileam in the one, opposed to Tanach and Gath-rimmon in the other.

By some ענו Aner (cf. Dict. Bible, s. v. Aner) is supposed to be a misreading for Tanach, but may, I think, be recognised in the modern village of 'Anim, in which rock-cuttings and other traces of an ancient site are observable.

בלעם. *Bileam* (1 Chr. vi. 70) is doubtless the same as *Ibleam* (2 Kings ix. 27), which being near the going up to Gur seems to have been beside a well-known road, and in the direction of the "garden house," which is usually taken to be Jenin. The principal road through Palestine now runs up the wady behind Jenin, and here are the ruins of Bel'ameh, which is the same word as Bileam, and the position of which seems also to answer the requirements of the case.

The *Rabbith* of Issachar and *Amad* of Asher, may perhaps be identified with the modern *Arrabeh* and *Umm el 'Amid* respectively, but the notices in the Bible seem too vague for any certain decision to be arrived at.

XIV.

P.E.F. Camp, Kannír, *March* 23, 1873.

Examination of the ruins of 'Athlít showed us the remains of a Crusading fortress, which in its palmy days must have been equal, if not superior, to anything else of the same period in Palestine proper.

It is now a broken relic, shattered by earthquakes, systematically spoiled and robbed of its stones by the Turkish Government to rebuild Akka; and disfigured by the mud hovels of the fellahín, built over it like the mud nests of the wall bees over Egyptian temples. Abandoned by the Crusaders in 1291, A.D., nearly six centuries of neglect and dilapidation have been unable to destroy the massive walls; whilst the extensive vaults, protected by their situation, are perfectly preserved. To select this as the *castellum peregrinorum*, or landing-place for the pilgrims, was a stroke of policy on the part of the old knights. They well knew the influence of first impressions, and knew the advantage of bringing men—many of whom they hoped would remain under their banners to fight on the sacred soil itself—to a prosperous well-built fortress, situate in a pleasant fertile district, rather than to a point whence the barren nakedness of the central and eastern hills would too soon be brought in view, lighted up by the pitiless glare of an eastern sun. The woodclad steeps of Carmel and her fertile maritime plain would have a homelike look to one coming from mid or southern Europe, and would do much to recommend the spot to pilgrims after long and weary travel by land and sea.

The town of 'Athlít occupies a low rocky promontory, having a small bay both to north and south, which would serve as harbours according to the direction of the wind; that on the north being protected from the south and south-west, and that on the south from the north and north-west. On the land side a wall is carried across the neck of the promontory enclosing some twenty-four acres of land between it and the town. This wall had three gates to the east and one to the south: it was strengthened by a tower at each end at the edge of the sea, and another on a small mound of rock at the south-east angle. A fosse filled from the sea afforded further protection.

The town itself was only entered by one gate to the east, flanked on either side by a large bastion. Before this lay the outer wall and ditch, and behind it the inner fosse, across which lay the main body or keep of the fortress. On the three other sides the town was protected by the sea and a double wall, including that of the keep. The accompanying plan will show at a glance the importance of the place.

The masonry throughout is massive and well constructed; so much so, that parts of it have been mistaken by some travellers for Roman work. There is, however, not the slightest trace of any building anterior to the Crusading period. The walls are generally of great thickness, ranging from 8 to 21 feet: the centre is composed of exceedingly hard rubble, which in many cases now stands alone, having been despoiled of its ashlar. In the outer walls this ashlar or casing is formed of stones 2 feet in depth, and varying from 2 to 5 feet in length, and always drafted: the draft is 3 inches in breadth, the boss rustic, and projecting usually about 4 inches, though in some cases it extends as far as 12 to 14 inches. In one place of the outer wall the

natives have cut into the stones to obtain the leaden clamps, which they told me were used to fasten the stones together. The inner ashlar is smooth dressed.

We found a series of vaults just within the wall of the keep on the east, south, and west sides. That on the south is 240 feet long, and about 30 feet high; that on the east is divided into several partitions, and has a total length of 264 feet. On the west is a fine groined vault, the bosses at the junction of the ribs being made of four trefoils, growing from the centre. Besides this is a vault 60 by 28 feet: it is cemented inside, and has no proper entrance other than by a man-hole in the roof, though now an entrance has been broken at the west end. Some of the fellahín told me that this was intended as an oil well, but it was more probably intended for water, as its capacity, some 261,000 gallons, would seem to preclude the idea of the former. Beneath the church there is, I was told, another vault, but the entrance to this has for some time been closed.

The most conspicuous fragment now standing is part of the east wall of a large tower, at the north-east of the town, known as El Karnífeh. It is about 70 feet above ground, 16 feet thick, and presents a fine example of the drafted masonry above referred to, on the outside. The rubble is very hard, and bound together by irregular courses of large smooth-dressed stones. The lower part of the inside shows the spring of a barrel-vault, and above this are three corbels, supporting the ribs for a groined roof, made of human heads, one bearded, and of a military aspect, the other with shaven face, and long locks curling at the end. A tower of similar importance and size is said to have stood at the south-west corner of the town, and was known as the *Kasr bint el Melek*, "the castle of the king's daughter." This, however, with the church and other buildings, was first overthrown by the earthquake in 1837, which proved so destructive to Safadh, and thence carried away by sea to Akka, for the repairs of that town, after the departure of Ibrahím Pasha. Before the earthquake the roof was still whole on the church; now its very foundations can only be partially traced. From the measurement and angles of some of the walls, taken by Lieut. Conder, I have tried to restore the building, but it is impossible to feel certain of its accuracy, as one cannot tell how much has been displaced by the earthquake; the force of which is attested by huge masses of masonry rolled down to the sea, and by two windows turned topsy-turvy, with parts of the surrounding walls. The houses of the fellahín and their accompanying dunghills, clustered over the spot, add to the difficulties in tracing the outline of the building. A fragment of one capital survives in fair preservation, and of this I send you a sketch. We found one pillar of gray granite 20 feet 2 inches long, and 3 feet 1 inch in diameter; a similar one is said to be buried in the rubbish near by. These may very likely have stood at the west door.

The cornice mentioned by Dr. Porter ("Murray's Guide") has quite

disappeared, but was talked of by some of the village elders. A tradition is extant among these people that El Melek el Dhaber—who, as I have before mentioned, always does duty for any historic king—though able to take Cæsarea by assault, was compelled to besiege 'Athlít for seven years before obtaining possession of it.

There are many traces of European work in the neighbourhood. To the north-east is the detached work of Drestray, containing a tower and stables, the former (now ruined) based on a square rock the sides of which have been quarried away to the depth of several feet; the stables, too, are cut out of the rock, the roof having been formed of masonry. Water was obtained during a siege from a cistern hewn in the rocky base of the main tower and from a well at its edge. The springs of Drestray lie about 200 yards to the north-east. This fort commanded a road cut through the "sea-wall" mentioned in my last report. Either this cutting or the fort itself seem to have been called "*petra incisa*" by the Crusading chroniclers (cf. Murray), and doubtless much information might be gathered from those sources about 'Athlít, though I have not been able to find any notice of it in the few books we have here.

Ruins in Wady Shellateh and at Rushmia on Mount Carmel seem to have been held in connexion with 'Athlit, and a quadrangular fort with towers at the corners, still existing in the neighbouring village of Kefr Lám, may belong to the same date, but is much more probably Saracenic, to judge from the irregular masonry and the small size of the stones.

Other symptoms of European occupation are visible in the ditches to drain the marsh east of the town of 'Athlít, in a rock-cut passage for the same purpose leading into the sea, and in a series of drain-pipes laid in a stone casing, apparently leading from the sea to a marsh called now *El Mellahah*, "the salt marsh." The only object I can imagine for these pipes is to bring sea water for evaporation, as the rocky bed of the present marsh being very near the surface, would, with very little trouble, form an excellent salt farm.

I will conclude my remarks on 'Athlít by stating that a former traveller, notwithstanding the pointed arches, Crusading sculptures, and other unmistakable mediæval remains, has described the ruins as of "*purest Phœnician style!*" A more forcible instance of the necessity of our work could hardly be found than this utterly groundless assertion, for at 'Athlít there is not the slightest trace of any masonry anterior to the Crusades.

Our present camp is situated on the edge of our former work, and not far from Umm el Fahm. The paucity, or rather deficiency, of villages on the maritime plain between Cæsarea and Jaffa, left us no other choice. The plain, however, is good travelling at this time of year, and a large tract can be worked with ease. All around us are extensive woodlands of *Quercus ægilops*, locally called *mallúl*, which extend from the edge of the Belad el Ruhah to some distance in the plain. A similar forest must have existed within quite recent times a

few miles north-east of Jaffa, as the roots and stumps of the trees are found there still alive. These trees do not often exceed thirty feet in height, as their boughs are frequently cut by the Arabs and fellahín for fuel, and also for the purpose of feeding their goats on the leaves. Beneath the oaks no brushwood is found, but there are a few scattered shrubs, such as the sweet flowered *'abhár* (*Styrax officinalis*), with its white blossoms not unlike the orange in colour and smell. The ground is now covered with herbage flecked with brilliant flowers, red, pink, and yellow, the latter colour, however, preponderating.

The plain and lower slopes of the hills are overrun with the flocks and herds of the Turcomans, who, living in the Merj Ibn 'Amir during the summer and autumn, come hither for pasturage during the winter and spring. Though living in tents, they cultivate the soil just like the fellahín, and pay the usual *'ashr*, or tithe, to the government.

They have entirely given up the Turkoman language, and now speak nothing but Arabic; several of the local names, however, on Carmel have a decided Perso-Turkish sound, and may perhaps be traced to these men's forefathers. Their mode of life differs in nothing from that of the ordinary Bedawín, but their cast of countenance is frequently Kurdish. They are divided into seven clans (called in Arabic Ashíreh, or Tyfeh) which are as follows:—1. El Tawat-hah. 2. El Biníhah, or Beni Gorra. 3. El 'Awadín. 4. El Shagayzát. 5 and 6. Beni S'aidán and 'Alakineh, these two being under one Shaykh. 7. El Naghnaghíyeh. Near Cæsarea are the camping grounds of the Damalkhah and Mus'aü Bedawín, and south of them are the Nafa'at. In the Wady Hawárith are a few tents belonging to the Emir el Háritneh, whose ancestors once ruled from Tiberias to Cæsarea, and from Akka to Baysan, with a rule of iron. It is probably to a chief of this family that Maundrell ("Early Tr. in Pal.," ed. Bohn. pp. 431, 476) refers by the name of Chibley, who lived at Jenín, and who "eased him in a very courteous manner of some of his coats, which now (the heat both of the climate and season increasing upon them) began to grow not only superfluous, but burdensome."

The tomb of a Moslem *weli*, or saint, named Shibleh, which stands west of Jenín, near Kefr Kúd, is very likely, as suggested to me by Dr. Chaplin, the tomb of this emir, though the fellahín near the spot could tell me nothing of his history.

I may here complete the list of Arab clans in this district by enumerating those in the Merj ibn 'Amir. They are—1. El Kabíyeh. 2. El S'aideh. 3. El Gharayfat. 4. El Zubaydat, and the Mohommaydat, who live on Mount Carmel. The Ghawárineh, "Men of the Ghor," or depression, live on the plain of Akka, and in the marshes of the Zerka, north-east of Cæsarea. The occupation of these last is chiefly pastoral; and partly by admixture of negro blood, partly on account of the great heat to which they are exposed, their skins are of a very dark coffee colour, blacker and less transparent than those of Abyssinians.

Cæsarea.—The ancient ruins of this city occupy a large extent of

ground, but there is little of interest to be found; I shall therefore first notice the mediæval and Saracenic remains, and afterwards revert to those of earlier date. The Crusading city occupied a space 600 yards long by 250 yards broad, on the coast almost midway between the walls of the ancient city. The wall which forms the boundary of the more modern town is fortified at intervals with towers, and fronted by a ditch. The masonry differs essentially from that of the outer walls of 'Athlít, though resembling the inner construction of that place, being small and undrafted. Against this outer wall a Saracenic scarp —sloping at an angle of 60 degrees—and a counter scarp on the other side of the ditch, have been built. Immediately on seeing the place, I felt sure that this was the case from the analogy of similar additions in various parts of Syria and Palestine; for example, at the so-called David's Tower, Jerusalem; at Kawkab el Hawa, the Crusader's Belvoir; and at the Castle of Horns. Proofs were soon found to show my surmise correct. In one place the scarp half covered a window with pointed arch and vertical joint in the crown similar to those at 'Athlít, and in the Morostán, Jerusalem. There in several places we saw how the scarp had been added on to the original perpendicular wall, after the latter had been finished and carefully pointed with hard white cement (that in the middle of the wall being softer, earthy, and of a blackish hue). Then, to prove the inner part of undoubted Crusading handiwork, we found ribs of groined arches, in one case supported by a corbel formed of a human head; and if this were not sufficient, the remains of a triple apsed church left no room for doubt. Just within the wall may be traced a covered way, 13 feet in width. Little remains of the upper part of the walls, except one tower to the north, on which we found just sufficient room to set the theodolite and observe, and part of the wall, near the southern gate, which stands close to a well of fine clear water, some 20 feet in depth. This well, which is within the walls, seems to have been supplemented by several aqueducts, which will be described further on. The only examples of drafted stones are to be found in the lower walls of the Kala'ah or south-western tower, which, built on a little promontory, extends for some distance into the sea. Here, in the second and fifth courses from the bottom, large columns of red and grey granite, and of black and grey marble, are built as bands alternately with the drafted stones. Beyond this is a reef with ruined buildings on it, being part of the old mole. A little to the north of this some sixty or seventy perfect and fragmentary columns, varying in length from 20 to 5 feet, have been rolled together to form a kind of rude pier in the shallow water on the reefs. Of the mediæval city itself, nothing remains but the ruins of two small buildings, of which the special use can in no way be designated, and of the church. The whole area is covered with shallow pits, from which the well-preserved stones have been taken to Akka, Jaffa, and other places on the coast. The church has suffered less, both on account of the smallness of its stone and the hard crystalline cement used in its construction.

Earthquakes have, however, done what the pilfering masons of Akka could not do. Masses of the wall lie within its area, and by the utter confusion in which they are thrown attest the force of the shock which laid them low. The apse is triple and semi-circular. An arched recess on the north side of the central apse may have been the archbishop's throne, while the rest of the officiating clergy sat in the opposite sedilia. Traces of white plaster are still to be seen on the inner walls of the body of the church. The pavement is visible in one corner, and is of a white marble, set in cement, over a layer of black earthy mortar. At the west end of the church are four buttresses, 18 feet deep by 6 feet in breadth, and some 50 feet high, with sloping tops. The connection of these with the church is somewhat difficult to make out. Beneath the church, and opening out on to these buttresses, are two vaults, one filled up with *débris* and broken in by fallen masses of wall, the other perfect and 70 feet long.

The Roman remains within the mediæval walls are to be seen on the beach near the north-west corner, where there is a layer of coarse tesselated pavement of white stones, buried beneath some 12 feet of *débris*, chiefly composed of broken pottery mixed with fragments of glass and of bones, most of which have been sawn in two. Farther south a wall may be traced, whose lower courses are built of stone, 2½ feet square. Farther on is a drain strongly cemented, and about a yard wide; the top is broken in. Near the church and north of it are some courses of large stones. These may, I think, with great probability be taken as the remains of the temple built by Herod to Cæsar and Rome, of which Josephus gives us the following accounts (Antiq. XV., ix. 6, and Wars I., xxi. 7): "Now there were edifices all along the circular haven made of the most polished stone, with a certain elevation whereon was erected a temple that was seen a great way off by those that were sailing for that haven, and had in it two statues, the one of Rome, the other of Cæsar." And again—"Over against the mouth of the haven, upon an elevation, there was a temple for Cæsar, which was excellent both for beauty and largeness." In the previous sentence he mentions the "white stone" of which the edifices were built.

These remains to which I have referred are so placed as to front the harbour, and are the only stones, with the exception of a portion of wall near the water's edge and now covered with 15 feet of *débris*, which we saw of white limestone. All the masonry of the Crusaders and Saracens, as well as the scattered stones in the outer area, are of cretaceous sandstone. I enclose a sketch to show the character of the masonry: the niches, whose tops are visible, were probably for the reception of statues. A draft and boss appear on some of the stones, which are, however, too much weathered to allow of measurement. I found traces of a similar wall running eastwards from this which is therefore presumably part of the façade. A series of narrow vaults (now broken in) of uncertain date extend between this building and the church, which lies to the south.

The account given by Josephus of the construction of the harbour has been called in question by many. He states that a mole was run out to protect the ships from the south-westerly gales, and that its foundations were sunk in twenty fathoms' water, and composed of stones fifty feet long, by eighteen broad and nine deep. Here we must recollect that Josephus could never have seen these huge blocks, and his information must have been derived from hearsay. Still, the size is not utterly improbable when we still find a quadrangular column of red granite 34 feet long by 5 feet wide, and more than 4 feet 6 inches deep, situated half a mile from the sea. The very numerous columns of granite and marble show that no expense can have been spared in the construction and ornamentation of the city.

The mole is described as 200 feet wide, and composed half of the *procymatia* or breakwater, and half by the quay and vaults in which the sailors lodged. The reef of rocks running westward from the Kala'ah, though robbed of nearly all its hewn stones, still retains traces of walls and answers well enough in size to this description. Here, too, may be seen traces of tesselated pavement formed of rough two-inch cubes, such as one would expect to be used out of doors, and with these the quay was very likely paved. In one place there are two layers of these cubes, as though one pavement had been broken and another laid over it.

Of the theatre and amphitheatre, which Josephus tells us were among the buildings of Herod, only the latter is to be seen; and this, too, is in such a ruined state, most of the stones being carried off, and the remainder nearly concealed beneath drift sand, that, were it not for the description, it would rather be taken for a theatre. In Antiq. XV., ix. 6, we find it thus described:—"Herod built therein a theatre of stone; and on the south quarter behind the port an amphitheatre also, capable of holding a vast number of men, and conveniently situated for a prospect to the sea."

West of this place, on the sea-shore, Lieut. Conder found traces of a jetty and walls of stones, similar to those mentioned in the north-west corner of the town, also two drains partly cut in the rock, partly of masonry, and measuring 9 feet 2 inches in width. Owing to accumulated rubbish, and the tops of the stairs being broken in, their height could not be ascertained. These seem likely to have been some of the drains mentioned by Josephus as "flushed" by the rise of the tide. As on this part of the Mediterranean coast this never exceeds two feet, the drains must have been nearly level. Geological evidence proves that the coast is gradually rising, and during the nineteen centuries which have elapsed since these drains were cut, it is not improbable that they have been raised to the height of some two or three feet above the present sea level.

An oblong space, 350 by 90 yards, towards the east of the old city, seems to have been a hippodrome. Here is to be seen the huge granite column before mentioned, as well as three cones, measuring 5 feet 8

inches diameter at the base, 4 feet at top, and 7 feet 6 inches in height. Near these, and also of similar pink granite, is a square pedestal measuring 7 feet a side, and projecting 1 foot 6 inches above the surface of the ground. The southern end of this course is banked up, and traces of the city wall appear outside it. The circuit of the ancient town can pretty accurately be traced to the corn-fields, as the ground outside them is much more sandy and unfit for cultivation. In most places, too, there are actual traces of the wall, but it has generally been destroyed for the sake of the stones it was composed of, and bits of the worthless rubble are all that we now see.

Aqueducts.—The aqueducts for the supply of the town next deserve our attention. They are two in number, and come into the north of the old city near the sea. The high-level, which has a double channel, comes from Subbarín, having been made, according to native tradition, by two daughters of a king, for a wager, to see who would first carry water into Cæsarea. The well at Sindiani, two miles south-west of Subbarín, is said to owe its supply to this aqueduct having been accidentally broken into by women digging for clay to roof their huts. The same legend attaches to some springs south-east of Cæsarea, called 'Ayyún el Benát, the "Maidens' Springs." Here, however, no traces have been discovered.

The low-level aqueduct comes from the Jisr el Zerka, and has a total length of three miles. It is supplied by the Nahr el Zerka, which, at the mills about a mile and a half from the sea, is stopped by a broad dam, which raises the water some twenty feet. Its channel is at first rock-cut, and open at top, but afterwards is a vault of masonry, 7 feet high, and 6 feet 4 inches wide, built on the low hills bordering the sea. The high-level can be traced for six miles, as far as a spring called 'Ain Ism'aín, a little below Sindiani. At this latter village it is again found in the well from which the natives still draw their supply, but higher up it is quite lost. This branch, though originally supplied from Subbarín, received large contributions from Miamás—of which place more anon—and was then carried nearly due west, to avoid the hills of drift sand. Below the mill of Abu Núr its construction can be well examined. It consists primarily of three red earthenware pipes, 6½ inches diameter, embedded in hard cement and carried either on a wall or over arches. In one place, air holes to relieve the pressure, and consisting of two similar pipes opening upwards from the conduits, are still visible. To the south of this has been attached, presumably at a later date, a similar aqueduct, also with three pipes. About 500 yards west of the mill this southern section takes an eccentric circuit with four angles, and rejoins the other shortly before passing through the "sea-well." The object of this *détour* is difficult to explain, unless it be on account of the marshy nature of the ground over which it passes. This southern branch is more perfect than the northern, and its arches in better preservation. On reaching the "sea-well" the aqueduct is carried through the rock, and is reached at intervals by man-holes 27 feet deep by 11

feet wide at top, and decreasing to 3 feet 3 inches at bottom. Steps lead down to the water, passing twice along each of the four sides of the shaft. The water channel is too much choked up for any exact measurement to be taken. After passing through the "sea-well," the water was carried on arches to the town of Cæsarea. In some places the aqueduct, judging from the masonry and method of "pointing" the joints, seems to have been repaired by the Saracens or Crusaders.

At Miamás there are several large springs, and many traces of dams and cisterns. At the base of the Khashm, as the bold headland forming the south-west extremity of Carmel is called, is the Kala'at Mi'amás, a Saracenic or Crusading tower tacked on to a Roman theatre. The latter building is much ruined, all the seats being destroyed, and the greater part of the outer as well as the inner line of vaults. The measurement across the front of the theatre, which faces S.S.E., and overlooks the plain and oak woods, is about 180 feet. The masonry is curious: the stones are built together without much regard for order, some being put in lengthwise, others on end, others on their side, the interstices being filled up with excellent mortar. The arches of the *vomitoria* are irregularly built, usually without a keystone. The main wall of the building between the outer and inner vaults is not built in a curve, but in short straight pieces. Several fine granite columns may be seen near the theatre and at the stream below; these, no doubt, belonged originally to the *proscenium*. Around the building are traces of rude dwellings, but as they seem to have been constructed with the stones pillaged from it, they may be referred to the period of Saracenic or Crusading occupation. As yet we have found no mention by any old writer of this theatre in connection with Cæsarea, from which it is distant about five miles. This is curious, as it must doubtless have been frequently resorted to by the inhabitants of that place.

On the summit of the Khashm above is a curious ruin of Roman construction. It consists of a square, enclosing a double and a triple vault with an irregular semicircular arch. The interiors of these vaults are connected by a series of square holes on a level with the ground, and measuring 2 feet by 2 feet. The object of these is difficult to imagine. Near this ruin is a fine rock-hewn cistern of bee-hive shape and well plastered. Directly to the west are the precipitous cliffs of the Khashm, tenanted by numerous griffon and Egyptian vultures, as well as by hawks and eagles of various kinds.

The view from this point is very extensive, reaching from Carmel Convent to far below Cæsarea. Immediately at one's feet dense thickets of reeds and tamarisks cover the marsh of the Zerka, and afford shelter to wild boars and crocodiles. (I have offered a reward for one of these reptiles, and have great hopes of obtaining a specimen.) Eastwards the heights of Shaykh Iskander, above Umm el Fahm, the block of Shaykh Bayazid above Jeb'a, Mounts Ebal and Gerizim, and the main points of the central range southwards, are still visible. Hence the extent of the oak woodland, the *ingens sylva* of the Romans,

of the encroaching tongue of sand stretching eastwards from Cæsarea, and other natural features of the district, may be studied with advantage. CHARLES F. TYRWHITT DRAKE, F.R.G.S.

THE AMERICAN PALESTINE EXPLORATION SOCIETY.

(From the *Observer*, New York.)

OUR American Exploring party have made a brilliant beginning for us. We were expecting valuable discoveries, but not so soon. Our allotted field is beyond the Jordan, and only preparatory labour was looked for on this side the river. But while Lieutenant Steever has been hard at work day and night in Beirut, organising the expedition, testing his instruments, and getting everything ready for the final march, our archæologist, Professor Paine, has not been idle.

THE HAMATH INSCRIPTIONS.

The readers of the *Observer* have all heard of the famous Hamath inscriptions. Our countrymen, J. Augustus Johnson, Esq., then American Consul-General in Syria, and the Rev. Samuel Jessup, were the first to discover and describe them, some three years ago. Copies of them, first published by our own Society, are now exciting the liveliest interest among scholars. We shall soon be able to put the public in possession of more exact and authentic copies. The stones were taken through Beirut a few weeks ago, on their way from Damascus to Constantinople. Our Consul-General in Syria, J. Baldwin Hay, Esq., persuaded the Turkish Government to permit our party to take impressions of them. The time was short, but Lieut. Steever and Professor Paine gave themselves eagerly to the work, and the result is a complete set both of squeezes and of plaster casts, which are now on their way to America. Our pamphlet, which is soon to be put to press, will tell the whole story; but meanwhile it may not be amiss to state that what have been called the fourth and fifth inscriptions turn out to be but parts of a single inscription carried round the stone.

THE GREEK INSCRIPTIONS AT DOG RIVER.

But of still greater importance is Professor Paine's discovery of three new Greek inscriptions, the existence of which appears not to have been even suspected. We accept the discovery with gratitude as an auspicious inauguration of our work in the Holy Land. Nahr el Kelb, or the Dog river of modern Arabic geography, is the *Lycus Flumen*, or Wolf river, of the Roman period. It rises in the heart of Lebanon, plunges down a wild and romantic gorge, and empties into the Mediterranean about two and a half hours, or seven miles, north-east of Beirut. The southern mountain wall which overlooks this rapid stream terminates at the sea in a bold promontory, around which, at the height of 100 feet above the water, winds an ancient road cut in the solid rock. The present road was cut in the reign of Marcus Aurelius, about 173 or 176 A.D. It is some six feet in breadth, paved with large uneven

stones. But above it, for a part of the distance, there are traces of a still more ancient road. On the wall of rock that lines the roads (three of them on the present Roman, six of them on the older road) there are nine historic tablets, first discovered by Maundrell in 1697, and often described and copied since. Three of them are Egyptian, and six Assyrian. According to Lepsius, the three Egyptian tablets bear the cartouche of Rameses II., about 1300 years B.C. Of the Assyrian tablets, one at least is the work of Sennacherib, about 700 B.C.

It was on the upper and more ancient road that Professor Paine made his fortunate discovery. He found there three Greek inscriptions, one of eight lines, one of twelve, and another of ten. He took squeezes of them all. The longest, of twelve lines, he has deciphered and rendered into English. Some errors may have crept into the transcription, but the legend is substantially as follows:—

Προκλε πεπον Τατια νου Αρισιοιο Α
κοιο γενεθλης ιθαγενοιο
Αρχικα πατρωιων εξωριαζων φαυλῳ
πρωθηβης φοινιξ Ηλιομπολεως Θεο
φιν αρχων Αιψα Μαλεκ τελεων ιερα
οσσα νοῳ φρονεε φοινικῃ αυτῃ
οσον και τοΔς εργαζοτεόν νοήμα
ω μεγα Θαυμα τα αιπυσατα των
σκοπελων ισον εθηκεμεσον
οφρα Διηνεκεως υμαλην οΔυν ει
ν νοντες φευγωμεν χαλεπεις
υψος οδοπλανης.

Proclus, friend of Tatian, son of Arisius, of A
co as to his birthplace, of honourable descent,
leaving behind the royalties of his fathers for a
common rank,
A Phœnician in the bloom of youth, of Baal'bek by
the will
of the gods, the ruler. Forthwith to Malek perform-
ing sacred rites,
As many as he thought prudent for Phœnicia itself,
in proportion also to this very to be executed purpose.
Ah, great marvel! the steepest parts of the
promontories he made level in the middle:
In order that, from beginning to end, the road being
even, in
the rainings we may escape difficult approaches;
the height being circuitous as to the route.

These names are new to history. Proclus appears to have been a Phœnician, of Aco (Acre), of royal blood, governor of Baalbeck. Of his date, as related to the Egyptian, Assyrian, and Roman dates, this is not the place to speak. Professor Paine's report will soon be published, and our scholars will then have the problem fairly before them.

ROSWELL D. HITCHCOCK,
President of the Palestine Exploration Society.

SURVEYS IN PALESTINE BY CAPTAINS MIEULET AND DERRIEN, OF THE FRENCH ETAT MAJOR.

From the Journal of the Paris Geographical Society.

The field operations undertaken with a view of constructing a map of Palestine were commenced in May, 1870. The first operation was the measurement of a base on the Plain of Acre. The western end was marked by a station 6ft. 5in. high, on a slight elevation, the eastern by an isolated tree (Dom) on the plain.

From this base, 8,725ft. long, the distance between the station at Tantourah and the Castle of Acre was found to be 22,760ft. By means of the side Tantourah—Acre Castle, the distance between Carmel and Acre Castle was calculated to be about 47,232ft. The side Carmel—Acre Castle was determined by the English Admiralty Survey, and its azimuth was known. This side served as a base for the triangulation.

Twenty-one stations were fixed with a theodolite, and all remarkable features of the ground were observed. The triangulation plotted on a scale of 1-100,000 was used as a basis for the Survey, and the detail was filled in on the same scale with a compass.

The map shows towns, villages, isolated houses, tombs, ruins, springs, wells, rivers, ravines, roads and paths, woods and cultivation; and the features of the ground by contours. All remarkable features of the ground were levelled, and the altitudes of more than 500 points determined with reference to the level of the sea.

The names of all the inhabited places in the mountains, of the rivers, springs, wells, ruins, &c., are carefully written on the map in French and in the Arabic character.

More than 1,019 square miles were surveyed, comprising the greater portion of the pachalik of Acre.

The work was interrupted in the first fortnight of August, 1870, and Captain Derrien is now engaged in putting his notes together.

FURTHER NOTES ON OUR LORD'S TOMB.

In a former *Quarterly* (June to September, 1870, pp. 379–81) I submitted some notes on our Lord's tomb, the object of which was to show that it must have been multilocular, and situated to the east of the city, probably on the Bethany road; and, therefore, that the present site could not have witnessed our Lord's entombment.

I am now prepared with further reasons for believing that our Lord was crucified (and, necessarily, buried) to the east of the city.

1. He was certainly crucified on a high road side (Matt. xxvii. 39; Mark xv. 29; Luke xxiii. 26), leading past gardens (John xix. 41).

2. There appear to have been but two *main* approaches to the city,—

a. That from Jericho, through Bethany, and round the Mount of Olives, and entering the east of the city by the Fish Gate.

b. That from the Maritime Plain and Joppa, entering the north-west of the city by the Gate of Ephraim.

A minor approach from Bethlehem entered the west of the city through the Gate of Gennath.

We must exclude the Joppa road as not complying with requisitions presently to be advanced; and also the Bethlehem road as not leading through gardens.

3. The gardens of David and Solomon were at the junction of the Kedron and Hinnom valleys south-east of the city. The base of the Mount of Olives was laid out in gardens, which also existed to the north of Agrippa's wall. There is no record of gardens existing to the west of the city. The Garden of Gethsemane was undoubtedly to the east of the city, as it was reached by crossing the Kedron (John xviii. 1).

4. In fixing the site of the crucifixion we must bear in mind that it was capable—

a. Of being witnessed from "afar off" (Matt. xxvii. 55; Mark xv. 40; Luke xxiii. 49).

b. It must also be within clear view and hail of the priests (Matt. xxvii. 41; Mark xv. 31), who can behold and revile (*in our Lord's hearing*, be it remembered) without fear of the defilement (John xviii. 28) attendant on an execution at the place of a skull.

The city side of the Kedron gorge (400 feet, *not* 150 *yards*, from the Bethany road) would easily have allowed the women and centurion to have viewed from "afar off," or "over against" (ἐξ ἐναντίας, Mark xv. 39) the site; and the equally near roof of the eastern cloister of the temple would easily have accommodated the priests and rulers.

Nowhere on the Joppa or Bethlehem roads could these conditions, especially the second, have been complied with. We are therefore driven to the Jericho and Bethany road, which alone of all the city approaches would meet the necessary requisitions.

5. I think the strict conformity between type and antitype necessitates that the eastern side of the city should have witnessed the crucifixion. As the temple faced the east, we can understand the fitness of its veil being rent in the presence of the fleshly Veil rudely torn on the opposite cross; we can understand the consummation of the great Antitypical Sacrifice in full view of the opposite typical altar.

But this analogy disappears if we remove the scene of the crucifixion to the west of the city, *i.e.*, to the back of the temple, whence only its outline could be seen.

6. St. Paul, I think, fixes indisputably the site of the crucifixion. Thus, in Heb. xiii. 11, 12, he writes: "For the bodies of those beasts (the sin offering) are burned without the camp. Wherefore Jesus also . . . suffered *without the gate*."

What gate? This is clearly not an abstract statement, implying simply "beyond the city walls," but a distinct reference to *the* gate, τῆς πύλης, by which the sin offering was carried forth to be burned without the city.

Now we can hardly suppose that the sin offering would be carried away all through the crowded and bustling streets, far away to the west, when the eastern gates of the temple, leading directly into the country, were close at hand. Through one of these gates, probably the great East Gate, the offering was taken out; and outside *this* gate, ἐξω τῆς πύλης, our blessed Lord was crucified.

7. Then if he was crucified to the east of the city, there he was buried; for "in the place where he was crucified there was a garden: there laid they Jesus" (John xix. 41, 42).

N. F. HUTCHINSON, M.D.

MORAR, *April 28th*, 1873.

NOTE.—I think the following extract interesting, as indirectly indicating the eastern site of our Lord's tomb:—"When the apostles separated to evangelise the world, Mary continued to live with St. John's parents in their house near the Mount of Olives, and every day she went out to pray at the tomb of Christ, and at Golgotha."—*Bishop Melito's (of Sardis) History.* See Smith's Dictionary, art. "Mary the Virgin," p. 264.

It is here clearly implied that St. John's house, the tomb of Christ, and Golgotha were alike "near the Mount of Olives." Mary had only to go out to reach the hallowed spots. We cannot understand her as passing through the city to the westward for that purpose.

HAMATH INSCRIPTIONS.

THE observations of the Rev. W. Wright, of Damascus, demand no comment from me. Time will show whether I was correct in the first tentative investigations of these inscriptions.

It will be observed that M. Clermont-Ganneau in his remarks on the kindred inscriptions of Aleppo, expresses the same opinions as myself in favour of an independent syllabic character anterior to the Phœnician alphabet. He likewise refers to the possibility of its connection with the systems of Egypt and Assyria.

M. Clermont-Ganneau's proposition of the term of Syrian for these characters is useful, because it serves to localise and define them.

HYDE CLARKE.

"MIDDLE CITY"—"SECOND CITY."

To the Editor of the Quarterly Statement.

SIR,—The difficulty felt by your correspondent "H. B.," when he asks what is the exact meaning of the expression, "the Middle City," in 2 Kings xx. 4, and of "the Second City" in 2 Kings xxii. 14, Neh. xi. 9, and Zeph. i. 10, seems to have been shared by our translators when they rendered the former middle *court* and the latter the *college*. The critics have been in similar perplexity when they have explained the middle city to be Zion city, and the second city to be the lower city. The confusion serves to show the need of thorough topographical investigation, such as that carried on by the Committee of the Palestine Exploration Fund, without which such references to local features will never be understood.

Some topographical features of the site of Jerusalem are indicated in Psalm xlviii. 2, which should be rendered :—

"Beautiful for height, the joy of the whole earth, is Mount Zion—on the thighs of the north is the city of the great king."

Jerusalem, says Josephus, was built upon two hills, which are opposite to one another, and have a valley to divide them asunder (*Wars* v. iv. 1). On the north of Jerusalem is a mountain plateau, and these two hills stretch down from it like two legs or thighs, with the Tyropœan Valley between them. The western thigh is the higher, and would be the site of the Upper City ; on the eastern thigh would be the Lower City and the Temple ; and when eventually the valley between them became occupied with houses, this would constitute the Middle City. The Hebrew word means "middle" in the sense of the divided part. In the parallelism of Hebrew poetry the second line does not simply repeat the idea of the first, but repeats it with some expansion, addition, or variation. In the present instance we have the eastern hill in the first line, and the whole of Jerusalem in the second. A parallel passage is Isaiah xiv. 13 : "I will sit also upon the mount of the congregation, in the thighs of the north." The mount of the congregation is the temple hill, the thighs of the north include the whole city.

Assuming this to be so, let us look at the texts referred to by "H. B.," and see if any light is thrown upon them. In 2 Kings xx. 4, Isaiah goes out from the presence of Hezekiah, and "afore he is gone into the Middle City" the word of the Lord comes to him. The royal palace, there is every reason to believe, was on the eastern hill—in the Lower City—and assuming that Isaiah was making his way to the Upper City he would have to pass through the Middle City to reach it.

In 2 Kings xxii. 14, "Huldah dwelt in Jerusalem—in the second (Jerusalem)." The Hebrew word (Mishneh) means second in order second in dignity, and might well be applied to that division of the city

which was second in order, whether you began reckoning from the east or the west. The Second City therefore would appear to be the same as the Middle City.

In Neh. xi. 9, Judah the son of Senuah is ruler over this Second City. Probably the two "thighs" were separately fortified at an early date, and the valley between them would be suburban to both. It would thus probably be the same as Josephus's "suburbs" (*Antiquities* xv. xi. 5), and perhaps the same as Parbar or the Suburb mentioned in 1 Chron. xxvi. 18 and 2 Kings xxiii. 11. The Second City itself would thus be virtually separate, so as to justify separate rule, and would only need short east-and-west walls at its northern and southern ends to shut it in entirely.

In Zeph. i. 10 the prophet is describing an invasion. Jerusalem, as was usual, is attacked on the north. There is first a noise from the Fish Gate, which for several independent reasons I should identify with the present Damascus Gate, at the head of the Tyropœan Valley. Of consequence there is next a howling from the Second Jerusalem, for the forcing of the Fish Gate has brought the invaders into the Middle City. Next, the alarm having spread, there is a crashing of spectators from the hills which constitute the "thighs." Lastly, the inhabitants of Macktesh are to howl. Macktesh means a mortar or socket, and may be a name descriptive of the hollow at the junction of the three valleys—Hinnom, Tyropœan, and Kidron—where, perhaps, the wealthy people would live. Some place the King's Gardens near here. The inhabitants are to howl because "all the merchant people are cut down." Now, the sweep of the invaders has been down the Tyropœan Valley, and "Tyropœan" is thought by some to mean "Valley of the Tyrian merchants." Another possibility is that Macktesh may have been one of the transverse valleys, since filled up, but rediscovered by Captain Warren.

For different views, see Lewin's "Sketch of Jerusalem," pp. 53, 54, where "the second" is taken to mean Second Gate (from Fish Gate); and Thrupp's "Ancient Jerusalem," pp. 116, 117, where the words of Zephaniah are supposed to indicate not the order of events, but the order in which they would be discovered by a person in the Upper City.

GEORGE ST. CLAIR.

To the Editor of the "Quarterly Statement" of the Palestine Exploration Fund.

April 23rd, 1873.

SIR,—Allow me to attempt a reply to the two queries of "H. B." published in your last *Quarterly*. No doubt in the original of 2 Kings xx. 4, the Hebrew is הָעִיר, which means the city, and not court. But "H. B." seems to have overlooked that this is the *Keri* (the reading in the

text), but that the *Khetib* (the marginal reading) is חָעִר, which means court. This reading was evidently before the Greek translators, their rendering being, as observed by "H. B." αυλη (court), and not πολις (city). Why the two readings should so greatly differ, and why the one is to be preferred to the other, is a question the discussion of which I presume does not come within the province of your columns. In reference to the second query I beg to observe that the Hebrew word rendered in the authorised version "college" is הַמִּשְׁנֶה, which the Septuagint evidently considered as the name of a certain part of Jerusalem, and therefore did not translate it. The word in question being derived from the root שָׁנָה, to repeat, to do (a thing) over again, the rendering "second city" is correct, and seems to mean as much as our *New Town* in contradistinction to the *Old Town*. Should it be the same which Josephus (Bell. Jud. v. iv. 2) calls καινόπολις ?

A. B.

NOTE ON THE NEWLY DISCOVERED SAMARITAN STONE.

Mr. Pritchett writes as follows:—

"In Gaza there have been three Englishmen resident for eight years in charge of the telegraph station. One of them, my friend Mr. Nimmo, received me as usual into his house, and very hospitably entertained Mr. Hamilton also. Another, Mr. Pickard, produced the stone which you mention, and Mr. Hamilton forwarded a squeeze of it to England. The stone had been accidentally found by men who were digging old foundations out of the sand for building materials, and Mr. Pickard brought it from thence. There can be little doubt of obtaining more if proper measures are taken,—through Mr. Hamilton, for instance, who now knows the place and the people. The stone is carefully preserved by Mr. Pickard."

This is at present the only information we have, except the squeeze itself, of the stone. The squeeze has been very kindly given to the Society by Mr. Dunbar Heath, to whom Mr. Hamilton sent it. The inscription is a passage from Deuteronomy iv. 29—31. It has been suggested that the stone belonged to a Samaritan synagogue at Gaza. We shall probably be able to write more fully on this interesting stone in the next number of the *Quarterly*.

ANNUAL GENERAL MEETING,

HIS GRACE THE ARCHBISHOP OF YORK IN THE CHAIR.

The CHAIRMAN: I will now call upon Mr. Holland, one of the Hon. Secs., to read the Report of the General Committee.

The Rev. F. W. HOLLAND read the Report:—

The work of the past year has been marked by continual and very satisfactory progress.

At the last Annual Meeting the Committee announced the resignation of Captain Stewart in consequence of ill health, and the appointment of Lieutenant Claude Conder, R.E., to take his place in charge of the Survey Expedition. Mr. Conder started for Palestine last July, and has since remained in command, having the valuable assistance of Mr. Tyrwhitt Drake.

The Committee desire publicly to record their sense of the ability, activity, and zeal which both Mr. Conder and Mr. Drake have displayed in the prosecution of the work.

After three years of hard work in Palestine and Syria, Mr. Drake is now on his way to England for a well-earned holiday; but will, it is hoped, shortly return to resume his labour.

The two non-commissioned officers, Sergeant Black and Corporal Armstrong, have continued to give the greatest satisfaction to the Committee, as will appear from Mr. Conder's report, and the strength of the party has recently been augmented by the addition of Corporal Brophy, also of the Royal Engineers.

During the year 1872 the Triangulation and Survey covered 1,200 square miles; during the present year, up to the date of the last report received, 400 more square miles have been surveyed.

The reports of the Survey and work in other directions have been published from time to time in the *Quarterly Statements*, which, in addition to Messrs. Conder's and Drake's reports, have contained many interesting and important papers, such as that on the Meteorology of Palestine, by Mr. Glaisher and Mr. Buchan; Captain Warren's list of Arabic names; Mr. George Smith's account of the history of Palestine as given in the cuneiform inscriptions; papers on the Hamath inscriptions, on the Shapira pottery from Moab, on the chronology of Palestine, and on various discoveries at Jerusalem.

To the writers of these papers, which have all been presented to the Society, the Committee have to express their warmest thanks.

A very important list of probable sites awaiting identification, and suggestions for making further discoveries, has been laid before the Committee by M. Clermont-Ganneau, whose name is so well known in connection with the discovery of the famous Moabite Stone.

M. Ganneau is most anxious to follow up his researches in Palestine,

which have hitherto been attended by such marked success; and the great importance of his suggestions has led the Committee to arrange with him to go out again in October in their service, provided that the necessary funds are forthcoming, and that the consent of his government is obtained, which they trust may be the case.

The income of the Society during the year 1872 amounted, from all sources, to £3,317 1s. 2d. The expenditure included £2,337 9s. 8d. for exploration expenses; £481 6s. for rent, salaries, advertising, and office expenses; £92 1s. 10d. for postage (including the sending of the *Quarterly Statements* to all subscribers), and £281 7s. 1d. for printing and lithographing, *i.e.*, for publishing the results of the work.

In the autumn of 1872 the Committee published a new book, entitled "Our Work in Palestine," which gives a clear and popular account of the work of the Palestine Exploration Fund since its foundation. Five thousand copies of this book have already been sold, and the sale of it still continues to be brisk.

With regard to the present financial position of the Fund, the amount received since the last annual meeting has been £2,985 16s. 4d.

The expenses of the Survey will amount to upwards of £2,400 during the year, and the Committee have now to appeal for funds not only to complete the Survey, but also to enable them to employ M. Ganneau for a year, that he may carry out the explorations which he has suggested, and which cannot fail to afford most valuable results.

A very interesting exhibition in connection with the Fund has just been opened by the Committee at the Dudley Gallery, Egyptian Hall, with the object of increasing the interest of the public in their work and promoting a better knowledge of the Holy Land and Jerusalem. Their special thanks are due to Mr. H. A. Harper for the loan of his extremely beautiful and truthful water-colour sketches, which form an important feature in the exhibition; also to Sir Henry James for the loan of models and photographs from the Ordnance Survey office; and to M. Clermont-Ganneau, for the loan of a valuable collection of inscriptions, seals, &c. Amongst other things there are exhibited the newly-obtained casts of the Hamath Stones, a cast of the Deluge Stone from the British Museum, original Sinaitic inscriptions, models of ancient and modern Jerusalem, Mr. Conder's sketches of the Shapira pottery, and tracings of several sheets of the new map of Palestine, the making of which forms at the present moment the principal work of the Fund. These tracings, some of which are lying on the table before you, show clearly how accurately and well the Survey is being carried out; and how far the new map, when completed, will not only surpass all previous maps of the Holy Land, but also be in itself a complete work, leaving nothing further to be desired.

The Committee have to deplore the loss of the following distinguished members of their body: Lord Ossington, who addressed the last annual meeting, and at all times took the warmest interest in the work, Mr. W. Tite, and the eminent Semitic scholar, Mr. Emanuel Deutsch.

The following is a report, received from Lieutenant Conder, of the progress of the Expedition under his command during the past year.

Lieut. Conder's Report.

When last the subscribers gathered to hear the history of the work done during the course of the year, the new expedition for the completion of the Survey of Palestine had just received a very serious check—the Committee had been obliged to announce the resignation of Captain Stewart, and but for the energy of my present colleague Mr. Drake, who for six months worked on alone through some of the most difficult country in Syria whilst expecting my arrival, the undertaking must have come to an untimely termination.

So small a party was probably never before entrusted with so important a work. It is but just to add that it is rarely that an officer can hope to command two men so thoroughly able and competent as Sergeant Black and Corporal Armstrong. The entire trustworthiness and soundness of Sergeant Black's work is a subject of the greatest satisfaction, and the zeal and pride in their work, and the quickness which both men have displayed in acquainting themselves with subjects entirely new to them, and in picking up the language, are points in the highest degree connected with the satisfactory nature of the report which I am able to lay before the Society. Palestine contains 6,600 English square miles between Dan and Beersheba, the Jordan and the great sea. Of this we have, at the time I despatch this report, completed 1,615 square miles, or nearly a quarter of the whole. When I reached Palestine in the beginning of July, 1872, the part marked on the map between Jaffa, Jerusalem, and Nablus was complete, with the exception of the hill representation, giving an area of 560 square miles, and a monthly rate of 110 square miles. Commencing again about the middle of the month we worked without a break to the middle of December, and included Samaria, the great plain, Nazareth, and Carmel within our limits. The total was thus brought up to 1,250 square miles, or more than one-fifth of the whole of Palestine—the work of four men in one year's time. The monthly rate during this second period was increased to over 140 square miles, and during the four weeks of September 150 square miles were finished, including the measurement of the "Base of Verification," near Jenin.

The lateness of the rainy season made it impossible to begin in the field before the last day of February, yet notwithstanding the fact that the country near Athlit, Tantura, and Cesarea is far fuller of interesting relics than any part we had previously visited, we had added before moving to our twentieth camp at Mukhalid another 300 square miles, giving a monthly rate of 170 square miles, far beyond any former rate, and indeed not one to be expected in other parts of the country not including, as does the plain of Cesarea, long tracts of blown sand without habitations or ruins. But such a statement of the quantity

completed would not be a satisfactory one, if I were unable to report favourably as to the quality. That this should be superior to that of any former map of Palestine is but a poor recommendation; our aim has been to make the production of a *better*, to the same scale, impossible. In September I was able to send news of the satisfactory nature of the great check on the work obtained by comparing the calculated length of the base line near Jenin with its actual measurement. In December I was further able to explain how, starting from a fixed latitude and longitude at Jaffa, we had carried our triangulation over a length of nearly 120 miles back to another fixed point at Acca, and had done so without error. Further details, and I feel sure not less satisfactory, will be furnished when the calculations in England are worked out.

Of the actual execution of the work the tracings sent to England will give an idea. The credit is mainly due to the workmanship of my two men, as the representation of the hills is the only part which I can claim as my own handiwork. The method employed in this has been considered by competent authorities satisfactory for the purpose, but is, of course, different from that which will be used when the map is engraved. The original copies remain in our keeping, and the work upon them is perhaps better finished than was possible on a thinner paper.

Some account of the method pursued in the outdoor survey may prove interesting to those who see merely the results in England. The average duration of a camp is three weeks, and their general distance apart twelve miles; but the amount of country which it is possible to survey from one centre differs according to its character and the situation of the camp, as regards the old work, from 60 to 150 square miles.

The first day is generally devoted to preliminary arrangements, and to the calculation from astronomical observations of the latitude of the place, other observations being added for the correction of the chronometers.

Our first operations after this consist in the choice of good points, from which the country for a radius of ten or fifteen miles may be seen; and in cases where such points are the highest tops of hills on which no building is found, they have to be visited, and a solid drystone cairn eight or nine feet high, whitewashed on such sides as point to other stations, has to be erected. In sandy ground this is superseded by a mound of sand and bushes piled to a sufficient height. In some cases an artificial tree is found most suitable for long-distance observations. In many places, however, the little square white tomb-house, with its round dome and overshadowing sycamore or carouba shining in the distance, indicates a good standing-ground for the theodolite. These are about as numerous and as useful to the surveyor as are the towers of our English parish churches.

The points chosen, the theodolite is conveyed on the back of a mule

to the spot, and every prominent object is observed, and its position with regard to the point of observation accurately determined. It is on these occasions that my colleague, Mr. Drake, collects the majority of the names, which are afterwards verified. This part of the work occupies about a week, and has lately given an average of ten hours per diem, of which six were consumed in riding to and from the point.

These operations finished, and the skeleton of the map thus constructed, the filling in of the detail next occupies our attention, and it is then that the greatest difficulty arises. A road (though generally a very bad one, yet better than none at all) leads to almost every important point; but where every inch of ground has to be gone over, it is, of course, impossible to follow one path. Cross-country work now begins, and tired horses have to be dragged up and down places where at first sight it would seem impossible for them to move. Rocks and boulders, thistles 10ft. high, deep mud, treacherous marshes, thick coppice, and burning plains, all add to the difficulties of the work, and places which may afterwards prove important are so hidden away that their position could not be imagined till one came quite close. However, by degrees all is worked in roads, villages, ruins, rivers, and all the details you see on the map are fixed, hill slopes measured, the geology examined, and collections increased. One day is then allowed to ink in and finish the whole, and the tents are then immediately struck, and the round of labour begins again.

My professional department is of course the only one for which I am responsible to the Society. Of the two important subjects of nomenclature and identification, it is not my duty to speak; all concerning which I wish to assure the Society is the thoroughness of that part of the archæological department of our undertaking which it is my calling to superintend. Of the date or value of any particular ruin my opinion would of course not be considered of great importance, except in as far as any one must learn from a constant comparison of various examples of a few styles. Mine is the more modest task of preserving all necessary notes of the fast crumbling monuments of antiquity. We are instructed to discover, measure, and sketch all that remains of ruins, some over 2,000 years of age, which have been subjected in turn to the fury of contending nations, the violent action of sun, wind, and rain, each more powerful than in more northern climates, and finally to the vandalism of the fellahín. I will briefly report on what we have done as regards these instructions.

With the 700 square miles sent home from Haifa, I sent a return, briefly epitomised in the accompanying report. This return contained a notice of every ruin marked on the map between Nablus and Haifa, and it will perhaps be remembered that no less than 35 per cent. were mere heaps of water-worn ashlar, or grey mounds, where once a ruin had stood. In such cases it is of course impossible to do more than mark the place on the map and plans, as sketches would convey no valuable information. Of the remaining relics, however, it is possible

to collect more than can be placed on the sheet, and accordingly a plan of each, with sketches, sections, and drawings of details where necessary, has been made, and the whole are kept in one book, into which they are transcribed as soon as possible from the field note-books. This volume forms, as it were, the memoir to the map. Among its more important contents I may mention notes on the ruins of Cesarea (where we found the wall of Herod's temple to Cæsar and Rome, and the famous drains at sea level mentioned by Josephus), those of Tantura and of Athlît. Three great Roman aqueducts, a little temple near Jenin, Crusading forts at Tell Kaymun, Seffuryeh, Rushmia, Kakun Dustray, Shellaleh, and Kalensawyeh, and no less than 150 rock-cut tombs of every description. A similar return has been constructed of the country passed over before my arrival, but is not as yet complete, and several plans and sketches await the time when I revisit that part of the country to execute the hill shading. This portion of the work is further supplemented by special surveys on a large scale of such places of importance as Cesarea and Athlît, and finished scale plans of their remaining buildings.

The meteorological observations, on the correct keeping of which Mr. Glaisher, who first interested himself on the subject, will be able to report, have been kept with all possible regularity in our camp, and thanks to the exertions of Dr. Chaplin and of Dr. Varten, they have also been forwarded from Nazareth, from Jerusalem, and from Jaffa. At Beyrout they have been under Mr. Eldridge's care, and have no doubt been equally satisfactory.

Geology.—The instructions with which I am furnished containing the combined experience of preceding expeditions, further direct my attention to the geology and natural history of the country as collateral branches of investigation. The Society has, indeed, refused to content itself with other than *professional* work; but I hope that when the time comes for sending out a distinguished geologist, the geological map which I am constructing may prove of service in directing him to points of interest, and that observations made honestly will be verified by his researches.

Natural History.—In natural history our attention has been chiefly confined to entomological collections and to the drying of plants. I may mention that a valuable collection of Orthoptera and Coleoptera is now being carried on at Jerusalem by Dr. Kersten, as the nucleus of a Jerusalem Museum, and that he has very kindly given me every possible assistance and much useful advice.

I cannot close this report without touching on a subject which to me, as to all members of the Fund, is of the very highest interest. I mean the "Exploration of Jerusalem." The attention of the Fund has indeed been lately diverted from this centre, but I sincerely hope that the labours of Captain Warren are yet to be followed out, and that I may be allowed part in an investigation, the interest of which is to me personally far beyond that of anything in the country, and to

the understanding of which I have already devoted more than five years of study.

No one can visit Jerusalem without being impressed with the courage, endurance, and ability which must have been necessary to enable Captain Warren to vanquish the difficulties he had to encounter and to collect from such a depth of *débris* the valuable data we now possess. In the Haram enclosure there is but very little of importance which he has left to be done. To a few points specially indicated by him I have turned my attention, and have been able to make a more minute survey of the surface of the Sakhrah than seems to have been possible before. One point of the greatest interest yet remains unsolved: the Well of Spirits below the rock is still a mystery, but great advances have been made in facilitating such investigations, and we need not yet despair of final success. Time will work wonders, and it must not be forgotten that money will do even more.

There are yet two subjects of the most paramount importance to be examined in Jerusalem, and the interest they excite is not, I believe, at all diminished. The first is the claim which the venerable Church of the Holy Sepulchre asserts to be considered the true site of the Saviour's tomb; the second is the discovery of the royal sepulchres, in which David, Solomon, and their successors lay embalmed. It must be pretty generally understood by members of the Fund that the first question hangs on the discovery of the site of the starting-point of that "second wall" which at the time of the Crucifixion was the boundary of Jerusalem. I have already submitted to the Committee a plan for its determination, based on the apparently obvious method of finding the first wall first, and have been given to understand that its acceptation was only delayed by want of funds.

As regards the tombs of the kings, I know of but one indication on which to work. Benjamin of Tudela, a traveller less credulous and ignorant than most of his immediate successors, graphically describes their accidental rediscovery in his own time by masons employed in the time-honoured custom of destroying ancient monuments by the demolition of the old Zion wall. Allowing for the natural exaggeration for which terror, darkness, and the rush of innumerable bats may account, there is but little reason to discredit the account. My proposal for the refinding of the tombs was to follow the example of these mediæval workmen, starting from a fixed point at the modern Bishop's School, and tracing the Zion wall northwards and eastwards—towards the city, and towards the ancient Ophel wall already discovered by Captain Warren.

As regards the question of funds I have but little to say. The expenses of the survey are reduced to a minimum, and it has again and again been shown to subscribers that an increased yearly expenditure for a shorter time is far more economical than the continuation of the present rate of work and of outlay for a period of five to six years. The Committee have been able to add one more member to my

party, but this is hardly sufficient to enable me to carry out the double party which I had hoped soon to organise. It must be remembered that this is simply a question of health. The climate becomes more trying to a European every year he remains in the country, and should the Society lose the services of either Sergeant Black or of Corporal Armstrong, now trained to the work and thoroughly competent, and lose them by failing to lighten and shorten their work, they will find it very difficult to supply the place of either without damage to the character of the work.

Could funds be collected for work in Jerusalem I should advise a partial break in the survey, for the reason that, situate as we are in remote corners of the country at a time when travellers are thronging into the city, the work of the Fund is but little known, and the large amount of interest which might be excited by a few tangible discoveries, which might be seen by every visitor, is entirely lost.

In conclusion I may be allowed to direct the attention of the meeting to the valuable services rendered to the Fund by many residents in Palestine.

The interest taken by Dr. Chaplin in our work, the care he has shown to keep it before the eyes of the world in this country, when we were unable to speak for ourselves, his long experience and great knowledge of every antiquarian subject connected with Palestine, without mentioning his unvarying courtesy and kindness, have been of the greatest service to ourselves and the Fund generally.

In Herr Konrad Schick the Fund has also a most valuable representative. His patient labour, and the advantages he enjoys from his position in Jerusalem, have enabled him to do work which it would be impossible for any others to do. The diagram of rock levels throughout the city, which he has kindly prepared at my request, is probably the most important basis on which to begin a study of the ancient topography that has been obtained since Captain Warren left the country.

I have already spoken of Dr. Kersten, and must recognise the kindness of Mr. Zeller in supplying us with a list of names in the centre of Palestine, and in guiding us to the discovery of several important antiquities, which we could not have found for ourselves.

From Mr. Elkavy, the Protestant missionary at Nablus, we also obtained a similar list, and received kindness and hospitality which were most acceptable in our long journeys through the country.

The general courtesy and ready help which we have met with from Europeans in all quarters, and especially from Mr. Moore, in the arrangement of our little local difficulties, is also worthy of the gratitude of the Fund; and in conclusion my own personal thanks are due to Captain Wilson and Captain Warren for their kindness in supplementing my inexperience by their own professional knowledge and advice.

The CHAIRMAN: I can unfeignedly say that I occupy the chair here

to-day with something of shame and regret, because I wish that some one of those who have taken an active part in this work which we have carried on now for several years could have replaced me on this occasion. I fear the sound of my voice must be a weariness to you; but my right to stand here consists in this,—that I feel that I represent the general public who meet once a year to encourage the active workers in the scheme, and to hear from them what they have done. The Fund has now expended a sum approaching £20,000; and for the first time we are obliged to say we feel a prospect of that alarming thing called a deficit. £20,000 is a large sum; but when I think how easily this nation gets rid of £20,000 for objects which have no great meaning after all, I cannot help urging the claims of this Fund, because we think the country can well afford it, and we think the object we have in view—that of making the words of the Sacred Book better understood—is a noble object, and one that is especially worthy of the people who have done more for the circulation of the Bible than any other people in the world ever did—the people of Great Britain. And when I say that we have expended £20,000, large as that sum is, I do not think the work will stand still because we have spent a great deal upon it. The object we are now engaged in is more interesting to men of science and cultivation than to the general public. History has something vague and unreal about it until you know the geography of the country in which the events of history have taken place, and not until you have a perfectly good map upon which the actors may stand does history become a reality. Well, it is the making of a perfect map of Palestine which has occupied us in the last year—not a map in which conventional mountains are laid down, nor yet a map constructed in that older fashion where monsters were exhibited as occupying large districts which were left blank—but a map which shall be a true picture of the country as it is now. One-fifth of this work is accomplished, as you will see on reference to the map before you, and you have therefore to do the rest. We have to regret that this Fund has lost during the past year two of its most excellent friends and supporters. Last year, on a similar occasion to the present, my much-esteemed and valued friend, Viscount Ossington, addressed the meeting. No man in this country took a greater interest in the cultivation of the people, and as you are aware, he gave us the benefit of his support because he thought this Fund would do much to cultivate a knowledge of the Scriptures. Again, one of the best scholars we had among us at our former meetings was Mr. Emanuel Deutsch. He also has been taken away. His Oriental learning was extremely great: not a son of this nation, he was ours by adoption, and at all times took a great interest in the affairs of this Fund. Well, we have completed during the year one-fifth of the Survey of Palestine, and we have put forth a new book—"Our Work in Palestine"—which the public evidently takes a great interest in—since it has purchased to the extent of 5,000 copies in a few months. This is a matter of congratulation to us, because the circulation of this book will do more to show what this

Fund has undertaken than the speeches here or anything else, because it contains the travels and actual discoveries of the Fund's officers, and because it also gives conclusive evidence that the field of research is immense. Regret has been expressed in the Report, and very naturally, that we have left our work in Jerusalem for the present; but we hope to go on with it again. M. Clermont-Ganneau wishes to devote his time and attention to the researches promoted by this Association. There are difficulties in the way, but we trust that those who wish that Jerusalem should have a large part of their attention will be able to have their wish gratified. I will not trespass on you, or prevent other speakers addressing you, but I will remind you that this Society is established for the promotion of the study of God's holy Word; and it has done a good deal in that direction—first through the volume which I hold in my hand, and in the second place, as you will see by a glance at that map, in the Survey of the country, and, as you have heard in the Report, by the prospect of its completion. There is a third point which should not be forgotten. Every society of this kind, besides the direct work which it does, promotes other work of the kind: it is like a beam of light; though the ray of light itself is straight, it diffuses.

Something should be said here of the researches of our excellent friend Canon Tristram in the land of Moab. His work on that land will show you what it is, and the kind of hopes that will rise up in the minds of travellers in connection with this Society. He discovered some ruins, for instance, where he found a temple of great magnificence and beauty, though for the most part ruined. But it was more than a beautiful temple: it belonged to no existing style of architecture, and was full of rich decoration which could not be classified. Imagine how our friend Mr. Fergusson would gloat over such a discovery. To connect this with any form of architecture a link was wanting. This Canon Tristram found. In a little church in Italy he discovered a triangular ornament, and there, behold, he recognised this fragment which he found in the Persian temple of Mashita. Now the question which it is my duty to put to you is, Will you help us a little more on the ground of what has been done? Will you help us to prosecute these researches a little further, to illustrate the Book which is foremost in our interest and chiefest of our studies? There are plenty of results to be obtained, and if you will give your time and your money to the cause a great amount of success is certain to follow. (Cheers.) I ought to have called upon Mr. Tyrwhitt Drake himself to read his report, but he is not here to-day, and we are afraid he is unwell. I am, however, now going to mention a name which deserves the highest honour in connection with this subject. I will call upon my friend the Dean of Westminster to move the first resolution. (Loud cheers.)

The Very Reverend the Dean of Westminster: My Lord Archbishop, Ladies and Gentlemen,—The first resolution which I have the honour to move is this, "That this meeting, having heard with satisfaction the Report presented by the Committee of the progress of the Survey

of Palestine, and of the operations of the Fund in other directions, pledges itself to use its utmost endeavours to raise the necessary funds to carry on the work to a successful conclusion." Like the Archbishop, I have so often addressed you on these occasions, and so often used the same arguments, that I have the same diffidence in referring to them again; but, nevertheless, one peculiarity of this Society is that it is perpetually discovering something fresh, and so supplies both your Grace and myself, and other speakers, with fresh arguments on the objects it has accomplished. No doubt it is true, as has been said in the Report, and as your Grace has said, we have a little wandered from the original field of our object, the exploration of the city of Jerusalem; and I have never wavered in my opinion that this is the part of Palestine which most demands exploration and investigation, and which is most likely to yield permanent and unexpected fruits; but the very fact that we have this chief object always in advance of us is like the Holy Grail pursued by the Knights of the Round Table, and may have the advantage of reminding us that, whatever other investigation we take up, and however long we put off the exploration of Jerusalem, this ultimate goal is before us as a perpetual incentive. I now turn to what has been done in the last year towards the completion of the map of Palestine; and there are one or two things which occur to me to say on looking at that map. When I look at that black line which indicates what we have accomplished, it is interesting to think that our Society has done so much, for in one sense that is the most interesting part of Palestine. But to me personally it is the least interesting part, because I know it best. What I want to see explored is not the western part of Palestine; I am burning to see that which I do not know, and what I do desire to see is the completion of the Survey on the east of the Jordan; the extension of that black line to the end of that blue streak, which represents the chasm of the Jordan Valley. We are in the habit at these meetings of using a little exaggeration in saying that very little or nothing has been done by previous travellers, but I think that is an error. In a general sense we do know a great deal about Western Palestine. No doubt even there we want precise knowledge. Nevertheless our enemies, if there be such wicked people in the world—our enemies might say that of the western side of the Jordan we have a very fair knowledge. But when you pass that black line, and cross the valley of the Jordan, we know—I am not sure whether I ought to be sorry to say it—but we know very little indeed. I may just mention one single instance, if you will allow me, to show you the incompleteness of our knowledge of Eastern Palestine. One of the most interesting scenes in sacred history is the meeting of Jacob with his brother Esau, as described in the book of Genesis; and never having been on the east of Jordan, I wished to make out exactly what the place of that event, and the nature of the scene, and in the first instance the precise nature of the valley of the Jabbok. But on turning to the word "Jabbok" in Dr. Smith's Dictionary of the Bible I found that all reference to the peculiarities of the stream, or indeed to

the scene itself, was entirely passed over. I then went to the Speaker's Commentary (and in mentioning that honoured name I would add the echo of my humble testimony to what your Grace has said of the great loss we all sustained), but here there was not one word of explanation of any kind. I then looked to books of travel which have touched upon it, but not even with the help of these could I form to myself any fixed, certain notion of what the place was like. I mention this because this was an incident that would certainly be brought out in a map, and we should have the whole thing placed before us very differently to the inadequate way in which it is put before us at present. So much for a negative proof of what we want. Now let us give two positive proofs of what may be gained by exploration on the east of the Jordan. I refer with great pleasure, in his presence, to Canon Tristram's "Land of Moab." I will not here repeat what your Grace has said of the Palace of Chosroes. I will only say that the discovery of the palace of that great king of Persia is most opportune at the moment that his successor is landing on our shores. But there are two localities described in that book which are connected with the Old and New Testament history. One is Callirhoe, the hot or cold bath to which Herod the Great was brought at the end of his life, which has only been described, and that but slightly, by one previous traveller, and any spot more romantic, more beautiful, than this wild glen, as represented by Canon Tristram, I cannot imagine. The other is Machærus, the castle in which John the Baptist was beheaded; most interesting on that account alone, but which never has been described before by any one. I am therefore thoroughly satisfied that the completion of this Survey is one of the most important things we have to do. I will only, in conclusion, say that I am glad we have been able to enlist another nation than ourselves in this great object, in the person of M. Clermont-Ganneau, and although we shall always have the credit of having commenced this Fund and kept the fire burning, yet we do not grudge other nations the credit of any assistance they may give in carrying out what we have begun. (Cheers.)

Mr. Walter Morrison: My Lord Archbishop, Ladies and Gentlemen,—I have been called upon at a very short notice to second this resolution, and to supply the place of Mr. George Grove, whose name is so well known to Biblical scholars. Mr. Grove has been unavoidably kept from coming here to-day, as we have received a message from him to state, by that cause which is upsetting all the arrangements of English society—namely, the Shah of Persia, who, as you are aware, is going down to the Crystal Palace next week. We have also much to regret the absence of Mr. Tyrwhitt Drake. We arranged this meeting at a time when we fully expected him, but, as you know, the climate of the East is one that tries and tells upon European constitutions. It has been necessary for him to come over for his health's sake, and he arrived at Trieste on Tuesday last. We have sent a telegram to him, but no answer has come, and we are afraid that he is laid up by some serious illness. Coming now to the resolution which it is my duty to second, let me refer to

the remarks which have been made by the Dean of Westminster as to the change which has taken place in our operations. This change has been pressed upon us by many of our subscribers. When we established this Society seven years ago we set before ourselves three objects —one of which was the preparation of a map of the country, and we thought those who would have joined us required something in return for their money in the way in which they would like to see it expended. And another reason which influenced the Committee when it was proposed to change our plan of operations was, that we have been in the habit of receiving subscriptions from our cousins across the Atlantic. They, however, suggested that they had better get up a society of their own; we therefore offered to divide the Exploration of Palestine with them, and offered them the East of Jordan. After we had done that came the discovery of the Moabite Stone. Our American friends were anxious to explore their part of the country, and we felt that we had no right to trespass on their portion of the Survey. However, we have gone on with our work, and out of 6,600 square miles of country Lieutenant Conder has finished the survey of 1,650 square miles, and I think that is not an unsatisfactory amount of work to have finished during the comparatively short time we have been at work. Roughly speaking, Palestine is about the size of the principality of Wales, and if you will come and look at the work on this table you will find that there is no shortcoming to be complained of at all. You must recollect that our surveying work is not merely confined to the part within that black ribbon, because it includes the part completed by Major Wilson and Captain Anderson, and portions of the Jordan Valley surveyed by Captain Warren, the Admiralty Survey, with Lynch's Survey of the Dead Sea, so that even if we were to come to a termination of our Survey now we should have a much better map of Palestine than could have been thought of ten years ago. I have the honour to occupy the position of Treasurer to the Fund, and I would ask the meeting to think especially of the concluding part of the resolution which I have seconded—namely, that it "pledges itself to use its utmost endeavours to raise the necessary funds to carry on the work to a successful conclusion." In changing our observations from Jerusalem to the Survey of the country we have gone aside from a sensational work to one of a different nature, because it requires a certain amount of thought and abstraction to realise the difficulty of completing a survey of this kind. Palestine has been frequently visited in recent years, particularly by tourists, who pass through the country every year, but until we commenced our excavations travellers only passed along the main streams and the beaten tracks. One of the incidental advantages of our Survey is that we can prove a series of negatives. Thus we have shown, which is in itself a most valuable piece of knowledge for future explorers, that there are certain districts in which nothing can be discovered. When we cover Palestine with triangles of fifteen miles from point to point it is extremely improbable that anything

of importance can escape the attention of the explorer, and when a given district is thoroughly explored, it is a guide to future explorers not to wait there but to seek elsewhere. On the other hand, if ruins are found which have never been visited before, it is likely that they will give a clue to identify other sites as well. With regard to the proposed arrangement with M. Ganneau, he is one of the most competent men to make discoveries in the Holy Land; he is a man of recognised ability, and has long had an official residence in Palestine, and has since been made dragoman to the French Embassy at Constantinople. He has first of all the advantage of knowing intimately the current dialect of Palestine, he has been accustomed to deal with the people, he knows who to put questions to, and how to get information without putting leading questions; and it would be of the utmost value that Mr. Tyrwhitt Drake and Lieutenant Conder should have a gentleman like M. Ganneau to support or criticise the conclusions to which they have arrived. This matter, however, is still *in nubibus*, and it depends on the French authorities whether we shall have his services or not. I can say no more at present, except that I hope those present will endeavour to persuade their friends to come forward to help us with the work we have in hand. It is true that our funds are not in a satisfactory state, but we are committed to the work, and must go on with it, and I hope the public will come forward and prevent us from being disgraced. (Cheers.) The resolution was unanimously carried.

The Rev. Canon Tristram: The resolution which I have the honour to move is this,—"That this meeting hails with pleasure the announcement that a preliminary American Expedition has commenced its work of exploration on the east of Jordan, and trusts that the two sister Societies will always continue to work heartily together." I might almost say that my friend the Secretary had had a little satirical humour in his mind, in selecting me, who have just been pioneering east of Jordan, to propose this resolution; but I do it with a good feeling, and with a cordial conviction that our American friends are likely to do a good work in Palestine, and that they are the men to do it. Four-and-twenty years ago, when I was in America, and when the rush was made to Minnesota and Iowa, no attention was devoted to the east, but every effort was made to get farther west; but now we find the Americans have reached their western limits, and, turned back by the waves of the Pacific, have determined to be foremost in the eastward march. I do not know that they will get ahead of us in that way, for we have been the real and true pioneers in Palestine exploration. Yet there are no three men of modern times who have done so much in their several departments, and who have done that work so well, as Dr. Robinson, Lieut. Lynch, and Dr. Thompson, and they were Americans. Right glad, therefore, are we to find that their mantle has descended on worthy successors. Let not our Transatlantic cousins fancy that we have forestalled them in Moab. Though I have just returned from an expedition thither, I feel our party have only been as Uhlans prospecting the

ground, and making a *reconnaissance* for the regular army of explorers that is to follow. We have at least, I hope, drawn attention to the work that remains to be done east of Jordan, and which I fancy rather exceeds the expectations even of my friend Mr. Besant himself. Of the eleven cities up to this time unknown, we have only succeeded in placing four, leaving still seven for the investigation of the American expedition. Again, south of the Arnon and eastward of the Moabite mountain range, the ground is quite untouched, and the followers have a virgin field. I have great pleasure in moving—"That this meeting hails with pleasure the announcement that a preliminary American Expedition has commenced its exploration on the east of Jordan, and trusts that the two sister Societies will always continue to work heartily together."

DR. BIRCH: My Lord Archbishop, Ladies and Gentlemen,—It affords me great pleasure to rise to second the resolution. At a former meeting of this Fund I seconded a similar resolution; and I am gratified to find that the American branch, or sister Society, has undertaken the investigation of the country east of Jordan, and that they are willing to deal in a most liberal spirit with ourselves. With Palestine proper, as has been well detailed by the Dean of Westminster, the world is well acquainted. There were, however, some peculiarities about the ancient Hebrew people. I believe they did not use inscriptions so extensively as other nations of the world; and few have been found in Palestine itself; but it is not so in Moab and east of Jordan. Only there is one caution necessary to be observed. If there are any spurious monuments, or monuments of doubtful antiquity, it will require not only considerable learning, but considerable archæological experience, to avoid being defrauded. Some of the things, sketches of which are now exhibited in the Dudley Gallery, profess to come from Moab, and the question is how far that is true. The country east of Jordan is, of course, a country of extreme interest, and it is to be hoped that the Surveys of the two Societies will be carried on in the same manner. That, I have no doubt, the Society has arranged. It is also to be hoped that they will note all the monuments they find, and collect such fragments as may be discovered in order to fix dates. The difficulties of exploring Jerusalem are very great, because you must go under the rock, and great obstruction must arise in carrying on operations under such conditions. Jerusalem is a city which has been subject to an infinite number of adversities. It seems to have been swept of ancient remains, and with the exception of those of the Roman period very few remain, particularly of the times of the Kings. Some, however, have been found, and there is no reason why other monuments may not be found in future explorations. At the same time the portions hitherto explored have not been very prolific. For these reasons I think we ought to hail with the greatest satisfaction the work carried on by the American Society, and wish them God-speed upon their way. (Cheers.)

The proceedings ended by a vote of thanks to the Chairman, proposed by LORD ALFRED CHURCHILL, and seconded by Mr. MACGREGOR.